

SUBSTANCE ABUSE TRENDS IN TEXAS: JUNE 2011

BY JANE C. MAXWELL, PH.D.
THE ADDICTION RESEARCH INSTITUTE

GULF COAST ADDICTION TECHNOLOGY TRANSFER CENTER
U. T. CENTER FOR SOCIAL AND BEHAVIORAL RESEARCH

ABSTRACT

This report updates indicators of drug abuse in Texas since the June 2010 report and describes trends by calendar year from 1987 to 2011. Important changes to drug patterns in Texas include increases in heroin use by a younger population. This was first noticed with the "cheese heroin" situation in Dallas, but heroin use by young persons is increasing statewide, with the proportion of persons in their twenties increasing from 35 percent of all heroin admissions in 2005 to 42 percent in 2010. The primary types of heroin in Texas are Mexican black tar and powdered brown.

Cocaine indicators have decreased with an aging cohort of users. There is no explanation for changes other than the possible influence of trafficking wars in Mexico, the demand for cocaine in Europe, production down in the Andes, and the addition of levamisole, which could dilute the cocaine purity.

No shortages of methamphetamine have been reported, and indicators are beginning to move upward. Local "cooking" of Ice using over-the-counter pseudoephedrine with the "one pot" or "shake and bake" method is common in the production of small amounts, but 69 percent of the methamphetamine is coming from Mexico, where the P2P method has been modified to produce a product that has a potency of 77 percent and a purity of 89 percent across the U.S. and a purity of 94 percent in Texas. Interviews with methamphetamine users entering treatment continue to show the extent of their mental and physical impairments and their need for intensive and extended treatment.

The pain pill problem continues to increase with the spread of the "Houston Cocktail" of carisoprodol, alprazolam, and hydrocodone. The indicators for hydrocodone are ten times greater than for oxycodone and buprenorphine indicators are increasing, although at a lower level than other opioid drugs. The marketing of soft drinks that imitate the codeine cough syrup pattern, such as "Lean" and "Drank," is a growing concern and "relaxation" brownies containing melatonin are sold in some stores.

Marijuana indicators remain mixed, with severity of problems among noncoerced marijuana treatment admissions notable. Hashish use is being reported in some areas. Marijuana homologs such as "Spice" are a growing problem, with 461 human exposure calls to poison centers in 2010 and 229 to June 1, 2011.

Alprazolam is the primary benzodiazepine which is misused, followed by clonazepam. Ecstasy indicators have varied over time with no clear pattern of change except the spread from the Rave scene to the street. BZP and TFMPP indicators are increasing. In 2007, there were 19 BZP and two TFMPP exhibits; in 2010, there were 528 BZP and 138 TFMPP exhibits in DPS NFLIS data. Dextromethorphan is a problem among young teenagers; GHB remains low but continues to be mentioned in combination with methamphetamine; and ketamine indicators are lower, as are indicators for LSD and other hallucinogens. Mephedrone exposure calls to Texas poison centers increased from 20 in 2010 to 133 through May, 2011. PCP indicators continue to increase, and exposures to inhalants continue, but with more calls for misuse of air fresheners or dusting sprays than for exposure to automotive products, spray paint, or gases.

Patterns of drug use vary along the border, with alcohol and marijuana being the primary drug problems in El Paso, heroin and marijuana in Laredo, and marijuana and alcohol on the Lower Border. In comparison to non-border treatment admissions, border admissions reported problems with alcohol, powder cocaine, marijuana, and heroin, with nonborder clients more likely to report problems with other opiates, methamphetamine, and crack cocaine.

The case rates for syphilis, Chlamydia, and gonorrhea have increased, with STD rates much higher for young women. The majority of acquired immunodeficiency syndrome (AIDS) cases continue to be people of color. The proportion due to injection drug use (IDU) continues to decrease, but the proportion of men who have sex with men (MSM) is increasing.

AREA DESCRIPTION

The population of Texas in 2010 was 25,145,561, with 45 percent White, 11 percent Black, 38 percent Hispanic, and 5 percent "Other." Illicit drugs continue to enter from Mexico through cities such as El Paso, Laredo, McAllen, and Brownsville, as well as through smaller towns along the border. The drugs then move northward for distribution through Dallas/Fort Worth and Houston. In addition, drugs move eastward from San Diego through Lubbock and from El Paso to Amarillo and Dallas/Fort Worth.

DATA SOURCES

This is an on-going series that is prepared annually as a report for the Community Epidemiology Work Group meetings sponsored by the National Institute on Drug Abuse (NIDA). This report updates the June 2010 report. To compare the June 2011 report with earlier periods, please access <http://www.utexas.edu/research/cswr/gcattc/drugtrends.html>

Data for this report include the following sources:

- **Student substance use data** for 2010 came from the Texas School Survey of Substance Abuse: Grades 7–12, 2010 and the Texas School Survey of Substance Abuse: Grades 4–6, 2010, which were authored by L.Y. Liu and published by the Department of State Health Services (DSHS). Data on Texas college students came from the 2005 Texas Survey of Substance Use Among College Students: Main Findings, also written by L.Y. Liu and published by DSHS. For 2009, the data for high school students in grades 9–12 came from the Youth Risk Behavior Surveillance Survey (YRBS)—United States, 2009, MMWR Surveillance System, downloaded June 3, 2010 at <http://apps.nccd.cdc.gov/youthonline/App/Results.aspx?LID=TX>.
- **Data on drug use** by Texans age 12 and older came from the Substance Abuse and Mental Health Services Administration's (SAMHSA) National Surveys on Drug Use and Health (NSDUH). The statewide estimates are from the 2007-2008.
- **Poison control center data** came from the Texas Poison Center (PCC) Network, DSHS, for 1998 through 2010, with updates on cannabis homologs and mephedrone to June 1, 2011. Analysis was provided by Mathias Forrester, epidemiologist with the Texas Poison Center Network, who distributes weekly reports on "Mephedrone and Methylenedioxypropylone (Bath Salts) Reported to the Texas Poison Center Network" and "Marijuana Homologs Reported to the Texas Poison Center Network." Analysis was also by the author.
- **Treatment data** were provided by DSHS's data system on clients admitted to treatment in DSHS-funded facilities from January 1, 1987, through December 31, 2010. In 2010, DSHS changed the reporting requirements and some programs which had previously reported are now excluded, so the total number of admissions decreased. For most drugs, characteristics of clients entering with a primary problem with the drug are discussed, but in the case of club drugs, information is provided on any client with a primary, secondary, or tertiary problem with that drug. Analysis was by the author.
- **Information on methamphetamine use** comes from interviews with recent users entering treatment, an on-going study by the author (NIDA R21 DA025029). Information on impaired drivers entering treatment was drawn from Maxwell, J.C. & Freeman, J. E. (2007), Gender Differences in DUI Offenders in Treatment in Texas, *Traffic Injury Prevention*, 8:353-360 and from Maxwell, J.C., Freeman, J.E., & Davey, J.D. Too Young to Drink but Old Enough to Drive Under the Influence: A Study of Underage Offenders as Seen in Substance Abuse Treatment in Texas, *Drug and Alcohol Dependence*, 104, 1-2, 107-112. Information on marijuana admissions to treatment are from Copeland, J. & Maxwell, J. C. (2007). Cannabis treatment outcomes among legally coerced and non-coerced adults, *BioMed Central Public Health*, 7:111-118.
- **Information on drug-involved deaths** through 2010 came from death certificates and computer runs from the Bureau of Vital Statistics, DSHS; analysis was by the author. The information on cocaine, heroin, methadone, other opiates, synthetic narcotics, benzodiazepines, and psychostimulants for 1999-2010 came from multiple cause data tapes updated on May 25, 2011 by DSHS. Data through 2009 is complete; 2010 death data are provisional because some cases have not been finalized. Hard copies of death certificates were last available to the author in 2007, so deaths involving some specific drugs are no longer updated in this report.
- **Information on drugs identified by laboratory**

tests was from the Texas Department of Public Safety (DPS), which reported results from toxicological analyses of substances for 1998 through December 2010 to the National Forensic Laboratory Information System (NFLIS) of the Drug Enforcement Administration (DEA) and from DEA toxicologists. Analysis was by the author on data downloaded from NFLIS on April 24, 2011.

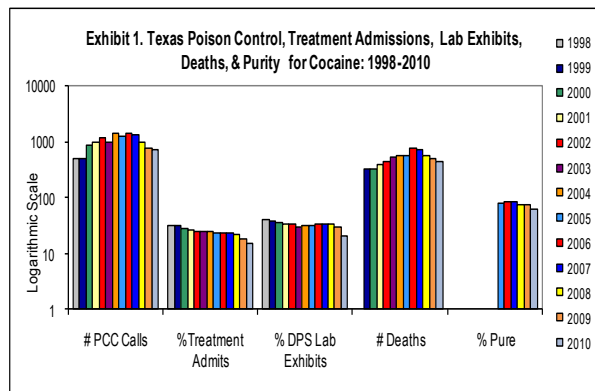
- **Price, trafficking, distribution, and supply** information was gathered from the July–December 2010 reports on trends in trafficking from the Dallas, El Paso, and Houston Field Divisions of the DEA.
- **Purity data** was provided by DEA. The purity of cocaine and methamphetamine came from the System to Retrieve Information from Drug Evidence (STRIDE) for Texas and the purity for heroin comes from the DEA Domestic Monitor Program (DMP)
- **Reports by users and street outreach workers** on drug trends for the first three quarters of fiscal year (FY) 2011 were reported to DSHS by workers at local human immunodeficiency virus (HIV) counseling and testing programs across the State.
- **Sexually transmitted disease (STD) and acquired immunodeficiency syndrome (AIDS)** data were provided by DSHS. The STD data are through 2010 and the AIDS data for 2009.

DRUG ABUSE PATTERNS AND TRENDS

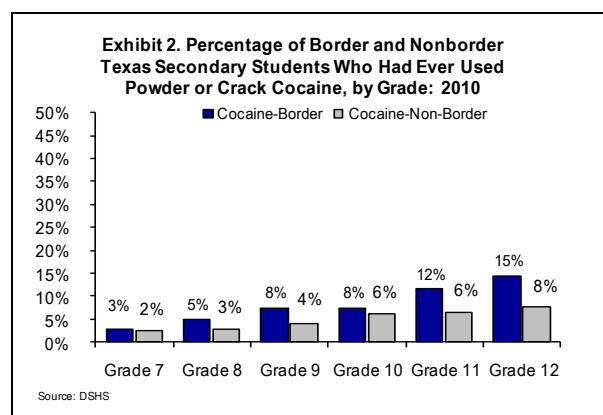
The 2007–2008 NSDUH estimated that 6.3 percent of the Texas population age 12 and older had used an illicit drug in the past month, which is below the national average of 8.0 percent, and 2.7 percent of Texans were dependent on or abused an illicit drug in the past year, as compared to 2.8 percent nationally.

COCAINE/CRACK

Cocaine indicators have decreased with an aging cohort of users (exhibit 1). There is no explanation for changes other than the possible influence of trafficking wars in Mexico, the demand for cocaine in Europe, production down in the Andes, and the addition of levamisole, which could dilute the cocaine purity. New terms for powder cocaine include “soft,” “snow seal,” and “her,” with new terms for crack cocaine including “hard,” “cookie,” and “biscuit.”



The Texas School Survey of Substance Abuse: Grades 7–12, 2010 reported that lifetime use of powder and crack cocaine had dropped from a high of 9 percent in 1998 to 5 percent in 2010, while past-month use dropped from 4 percent in 1998 to 2 percent in 2010. Some 5 percent of students in nonborder counties had ever used powder or crack cocaine, and 2 percent had used it in the past month. In comparison, students in schools on the Texas border reported higher levels of cocaine use: 8 percent lifetime and 4 percent past month (exhibit 2).



The 2009 YRBS reported that 8.5 percent of Texas high school students had ever used cocaine, as compared to 12.6 percent in 2007, 11.9 percent in 2005, and 13.0 in 2001. The 2005 Texas college survey reported that 10 percent had ever used cocaine or crack, and 2 percent had used it in the past month.

For the period 2007–2008, the NSDUH reported that 2.0 percent of the Texas population age 12 and older had used cocaine in the past year, below the national rate of 2.2 percent.

Texas Poison Center (PCC) Network calls involving human exposure to cocaine increased from 497 in 1998 to 1,363 in 2007 and then decreased to 754 in

2010 (exhibit 1). Sixty percent of the cases in 2010 were male.

Cocaine (both crack and powder) represented 14 percent of all admissions to DSHS-funded treatment programs in 2010, down from 35 percent in 1995. Among all cocaine admissions, cocaine inhalers were the youngest, most likely to be Hispanic, and involved in the criminal justice system (exhibit 3). Cocaine injectors were older than inhalers but younger than crack smokers; they were the most likely to be White.

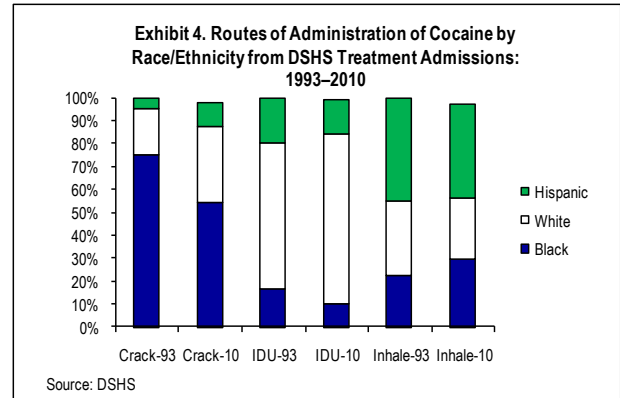
Exhibit 3. Characteristics of Clients Admitted to TDSHS-Funded Treatment with a Primary Problem with Cocaine by Route of Administration: 2010				
	Crack Cocaine Smoke	Powder Cocaine Inject	Powder Cocaine Inhale	Cocaine All ^a
# Admissions	6,015	405	3,440	10,053
% of Cocaine Admits	60	4	34	100
Lag-1st Use to Tmt-Yrs.	15	18	11	14
Average Age	40	39	32	37
% Male	48	56	53	50
% Black	54	10	30	45
% White	33	74	27	33
% Hispanic	12	14	42	21
% CJ Involved	47	55	66	54
% Employed Full Time	7	10	22	12
% Homeless	16	15	4	13

^aTotal includes clients with "other" routes of administration.

Source: DSHS; analysis by J. C. Maxwell

The term "lag" (exhibit 3) refers to the period from first consistent or regular use of a drug to the date of admission to treatment. Powder cocaine inhalers averaged 11 years between first regular use and entrance to treatment, while injectors averaged 18 years of use before they entered treatment.

Exhibit 4 shows the changes between 1993 and 2010 by route of administration. The proportion of Blacks among crack cocaine admissions fell from 75 percent in 1993 to 54 percent in 2010, while the proportion of Whites increased from 20 percent in 1993 to 33 percent in 2010. Hispanic crack admissions rose from 5 percent to 12 percent in the same time period.



The number of deaths statewide in which cocaine was mentioned increased from 321 in 1999 to 778 in 2006 before dropping to 447 in 2010 (exhibit 5). The average age of the decedents is increasing from 35 in 1992 to 46 in 2010. Thirty-four percent were White, 28 percent were Hispanic, and 34 percent were Black; 74 percent were male.

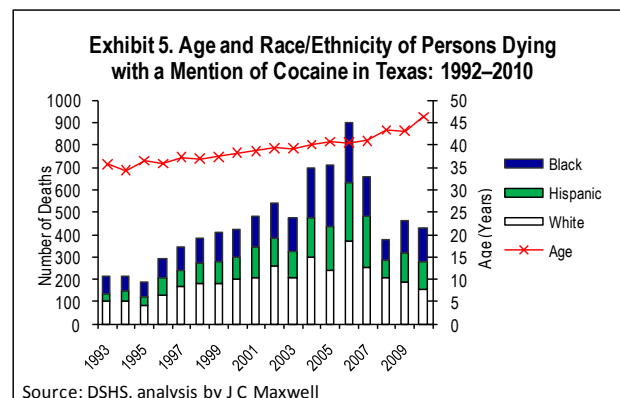


Exhibit 1 shows that the proportion of substances identified as cocaine by the DPS labs is decreasing. In 1998, cocaine accounted for 40 percent of all items examined, compared with 20 percent in 2010. The purity of cocaine in Texas has also decreased from 82 percent in 2005 to 64 percent in 2010. The DEA laboratory has been finding levamisole (phenyltetrahydroimidazothiazole) ("PIT") in cocaine exhibits for a number of years, and the decrease in purity may reflect increased use of PIT as a filler to increase the quantity of cocaine.

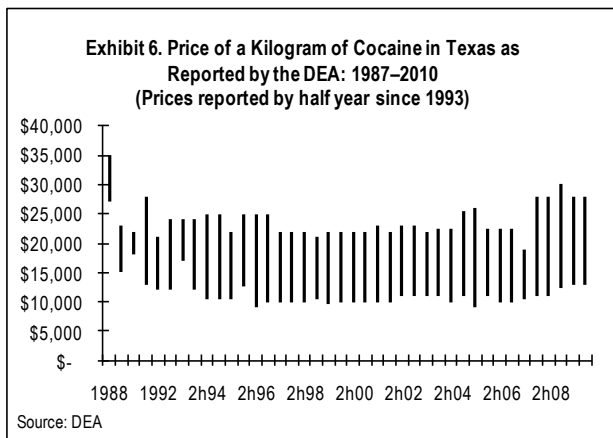
The Dallas DEA FD reported an increase in cocaine loads from Mexico being routed directly to the Dallas area for distribution to the Midwestern and Eastern U.S. Cocaine availability is high and stable. Retail distribution in the area is by Mexican drug trafficking organizations and African American and Hispanic street gangs.

The El Paso DEA FD reported that cocaine is

readily available in El Paso. The severe shortages of 2008 and 2009 have diminished and availability is returning to normal levels, though prices are high. The cartel violence has become entrenched in Ciudad Juarez and smuggling cells have adapted to the environment. In the Midland-Odessa area, crack cocaine use and distribution is the primary concern of law enforcement agencies. Distributors purchase powder cocaine in the area and then convert it to crack for distribution throughout North Texas and Oklahoma.

The Houston DEA FD reported the availability of powder and crack cocaine as high and stable. Cocaine continues to transit through the FD to northern and eastern cities as well as for local consumption. Law enforcement actions include multiple arrests and seizures of multi-kilogram amounts of cocaine. The drug largely transported by Mexican and Colombian drug trafficking organizations operating in the area, with retail distribution by Hispanic and African American street gangs. Crack cocaine is not usually transported into the Houston area but is produced locally for distribution.

The price of cocaine has risen slightly (exhibit 6). A gram of powder cocaine that cost \$50-\$80 in Dallas in 2008 now costs \$60-\$90 in Dallas, \$40-\$120 in El Paso, \$30 in Laredo, \$40 in McAllen, and \$60-\$100 in Houston. An ounce in 2010 cost \$450-\$1,200 in Dallas, \$600-\$1,000 in El Paso, and \$350-\$450 in Austin. The price of a kilogram of cocaine in Matamoras, across from Brownsville, had increased from \$12,000-\$13,000 to \$18,500-\$20,000, \$21,000-\$28,000 in Dallas, \$20,000-\$26,000 in Houston, \$16,000-\$22,000 in El Paso, \$19,000-\$25,000 in Lubbock, \$24,000-\$30,000 in Tyler, and \$25,000-\$27,000 in San Antonio.

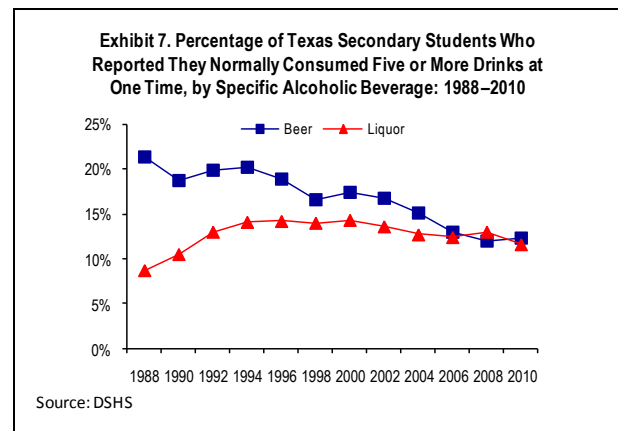


Across the State, a rock of crack cost \$10-\$50. An ounce of crack cocaine cost \$500 in El Paso, \$700-

\$950 in Fort Worth, \$550-\$900 in Lubbock, \$600-\$800 in San Antonio, and \$550-\$800 in Houston. A kilogram in El Paso cost \$19,000-\$32,000, \$24,000-\$30,000 in Houston, and \$18,000-\$30,000 in Dallas.

ALCOHOL

Alcohol is the primary drug of abuse in Texas. In 2010, 62 percent of Texas secondary school students (grades 7-12) had ever used alcohol, and 29 percent had drunk alcohol in the last month. Of particular concern is heavy consumption of alcohol, or binge drinking, which is defined as drinking five or more drinks at one time. In 2010, 12 percent of all secondary students said that when they drank, they usually drank five or more beers at one time, and 12 percent reported binge drinking of liquor, which has remained relatively stable since 1992 (exhibit 7).



Among students in grades 4-6 in 2010, 22 percent had ever drunk alcohol, and 14 percent had drunk alcohol in the past school year. Eleven percent of fourth graders had used alcohol in the school year, compared with 19 percent of sixth graders.

The 2009 YRBS reported 76 percent of Texas high school students in grades 9-12 had ever drunk alcohol, 45 percent had drunk in the past month, and 26 percent had drunk five or more drinks in a row in the last month. In comparison, in 2001, 81 percent had ever drunk alcohol, 49 percent had used in the last month, and 31 percent had drunk five or more drinks at a time. In 2009, 24 percent of girls and 27 percent of boys reported binge drinking as compared to 28 percent of girls and 30 percent of boys in 2007.

The 2005 Texas college survey found that 84 percent had drunk alcohol in their lifetime and 66 percent had drunk in the past month. Almost 30 percent of college students reported binge drinking (38 percent males and 23 percent females). Although the legal drinking age is 21, 58 percent of

college students age 18 to 20 reported drinking an alcoholic beverage in the past month.

The 2007–2008 NSDUH estimated that 47 percent of all Texans age 12 and older had drunk alcohol in the past month, below the national average of 51 percent and 23 percent had drunk five or more drinks on at least one day (binge drinking) in the past month, the same as the national average of 23 percent. Among underage Texas drinkers (age 12 to 20), 25 percent reported past-month alcohol use, as compared to 28 percent nationally, and 16 percent of Texas underage youths reported past-month binge drinking, as compared to 19 percent nationally. Some 6.9 percent of Texas age 12 and over were found to be alcohol dependent or abusers in the past year, as compared to 7.4 percent of the U.S. population.

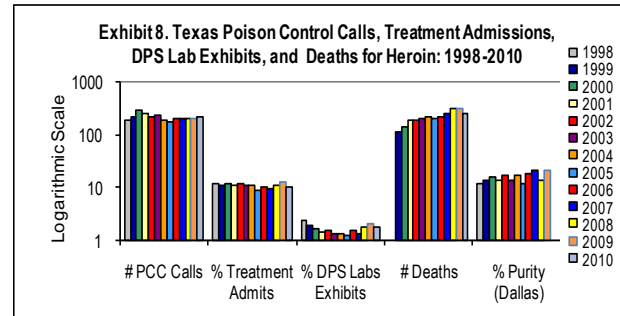
In 2010, 30 percent of all clients admitted to publicly-funded treatment programs had a primary problem with alcohol (appendix 1). The characteristics of alcohol admissions have changed over the years. In 1988, 82 percent of the clients were male, compared with 68 percent in 2010. The average age increased from 33 to 38 years. During this time, alcohol clients are becoming more likely to be polydrug users: the proportion reporting no secondary drug problem dropped from 67 to 36 percent, and the proportion with a problem with cocaine (powder or crack) increased from 7 to 22 percent. Consuming cocaine and alcohol at the same time produces cocaethylene, which intensifies cocaine's euphoric effects.

The characteristics of persons who entered treatment with a past-year offense for Driving Under the Influence (DUI) have also changed over time. Between 1990 and 2008, the proportion of past-year DUI arrestees who went to DSHS-funded treatment who were female increased from 13 percent to 29 percent, and the proportion of DUI treatment admissions who had a primary problem with alcohol decreased from 88 to 67 percent. Of those DUI arrestees under the legal drinking age of 21 who entered treatment, the proportion reporting a primary problem with alcohol decreased from 75 percent in 1990 to 21 percent in 2008, the proportion with a primary problem of marijuana increased from 19 to 63 percent, and the proportion with a primary problem with cocaine increased from 5 to 7 percent.

HEROIN

Heroin indicators remain varied (exhibit 8), but there are indications of growing problems among teenagers and young adults. This was first noticed with the "cheese heroin" situation in Dallas, but

heroin use by young persons is increasing statewide, with the proportion of persons in their twenties increasing from 35 percent of all heroin admissions in 2005 to 42 percent in 2010. The primary types of heroin in Texas are Mexican black tar and powdered brown.



The proportion of Texas secondary students reporting lifetime use of heroin dropped from 2.4 percent in 1998 to 1.4 percent in 2010. The 2009 YRBS found 2.1 percent of Texas high school students had ever used heroin, as compared to 2.4 percent in 2007 and 3.0 percent in 2005 and 2001. The 2005 college survey found 5 percent of students had ever used heroin or other opiates.

Calls to the Texas Poison Center Network involving confirmed exposures to heroin ranged from 181 in 1998 to a high of 296 in 2000 but dropped to 222 in 2010 (exhibit 8).

Heroin was the primary drug of abuse for 10 percent of clients admitted to treatment in 2010 (appendix 1), as compared to 12 percent in 1995. The characteristics of these addicts vary by route of administration, as exhibit 9 illustrates. Most heroin addicts entering treatment inject the drug, but the proportion inhaling heroin increased from 4 percent of all heroin admissions in 1996 to 16 percent in 2010. During that time, the average age of inhalers decreased from 30 to 27 years.

While the number of individuals who inhale heroin was small, the lag period between first use and seeking treatment for this group was 7 years, compared to 13 years for injectors. This shorter lag period means that, contrary to the street rumors that "sniffing or inhaling is not addictive," inhalers can become dependent on heroin and enter treatment sooner while still inhaling or they will shift to injecting, thus increasing their risk of hepatitis C and HIV infection, becoming more impaired, and entering treatment later.

Exhibit 9. Characteristics of Clients Admitted to DSHS-Funded Treatment with a Primary Problem with Heroin by Route of Administration: 2010

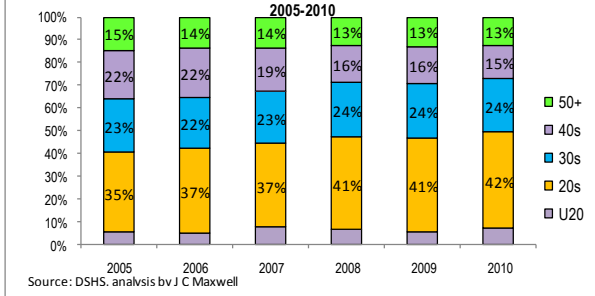
	Inject	Inhale	Smoke	All ^a
# Admissions	5,355	1,082	73	6,652
% of Heroin Admits	81	16	1	100
Lag-1st Use to Tmt-Yrs.	13	7	7	12
Average Age	34	27	30	33
% Male	61	54	56	60
% Black	7	22	8	9
% White	53	35	42	51
% Hispanic	35	30	38	38
% C/J Involved	34	45	40	36
% Employed Full Time	5	5	4	5
% Homeless	17	9	11	16

^aTotal includes clients with other routes of administration.

Source: Texas Department of State Health Services; analysis by J. C. Maxwell

Of the 2010 heroin admissions, 33 percent reported no second substance problem and 18 percent reported a problem with powder cocaine (which shows the tendency to "speedball," or use heroin and cocaine sequentially). Thirteen percent reported a second problem with marijuana, 11 percent with alcohol, 7 percent with other opiates, and 5 percent with crack cocaine.

Exhibit 10. Texas Heroin Admissions to Treatment by Age Groups: 2005-2010

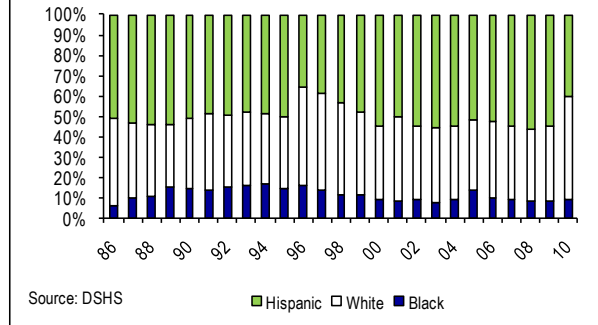


Source: DSHS, analysis by J. C. Maxwell

The increase in the proportion of young persons entering treatment for dependence on heroin is of concern. The proportion in their twenties increased from 35 percent to 42 percent, while the proportion of older admissions decreased. The proportion of teenagers entering treatment has remained low, but given the lag between first use and dependence, many of the admissions in their twenties began heroin use as teenagers (exhibit 10). In addition, as age increased, users shifted route of administration, with 87 percent of clients age forty and older reporting injecting the drug.

The race/ethnicity of the treatment admissions has also changed, with the proportion of Whites increasing to 51 percent in 2010 and the proportion of Hispanics decreasing to 38 percent.

Exhibit 11. Percent of Heroin Admissions to DSHS-Funded Treatment by Race/Ethnicity: 1986-2010

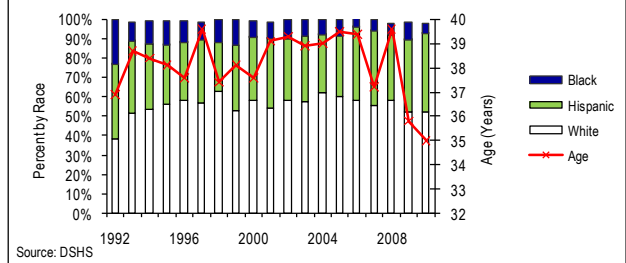


Source: DSHS

"Cheese heroin," a mixture of Tylenol PM® and heroin (heroin combined with diphenhydramine and acetaminophen), continues to be a problem in Dallas, and heroin inhaling is increasing across Texas. Diphenhydramine has traditionally been used as a "cut" to turn tar into inhalable powder. Cases of "cheese heroin" have been reported in other counties in the Dallas/Fort Worth area, but the term "cheese heroin" is rarely reported elsewhere in the state, although heroin use by teenagers and persons in their twenties continued to increase statewide.

In 2010, there were 256 deaths in Texas involving heroin (exhibit 12). Fifty-two percent were White, 41 percent were Hispanic, and 5 percent were Black; 80 percent were male. In the past two years, the average age has dropped; it is now 35, as compared to 40 in 2008. Of the deaths involving heroin in 2010, 54 percent involved only heroin, with another 25 percent also involving cocaine (with or without other drugs); 11 percent of the heroin deaths also involved benzodiazepines (with or without other drugs).

Exhibit 12. Age and Race/Ethnicity of Persons Dying with a Mention of Heroin in Texas: 1992-2010



Source: DSHS

Exhibit 8 shows that the proportion of items identified as heroin by DPS labs has remained low at 1-2 percent over the years. The El Paso DEA FD reported black tar heroin availability as low and stable, with users crossing into Ciudad Juarez to

obtain their supply. The Houston FD reported moderate availability with street-level availability increasing. Black tar, Mexican brown and some South American heroin is available. The Dallas FD reported black tar and Mexican brown heroin available. While user amounts of white heroin are available, wholesale quantities of the South American heroin transit the area to the northeast. Cheese heroin continues to be a problem among adolescents.

Colombian white heroin is rarely seen on the streets in Texas, but there are sporadic and recurring reports of wholesale quantities of South American heroin transiting through Texas to the northeast. Street outreach workers in Austin report that besides black tar, Mexican brown, and South American heroin are available, and there are mentions of Afghan heroin.

The predominant form of heroin in Texas is black tar, which has a dark, gummy, oily texture that can be diluted with water and injected. Exhibit 13 shows the decline in price over the years. Depending on the location, black tar heroin is sold on the street for \$5–\$20 per paper, balloon, or capsule, \$40–\$120 per gram, \$700–\$1,600 per ounce, and \$32,000–\$48,000 per kilogram.

Mexican brown heroin, which is black tar heroin that has been cut with lactose, diphenhydramine, or another substance and then turned into a powder to inject or inhale, costs \$10-20 per cap. A gram costs

between \$200 and \$240 in El Paso. An ounce cost \$1,200–\$1,500 in San Antonio.

A kilogram of South American in Houston ranged between \$42,000-\$60,000. In addition, there have been a few anecdotal reports of Southwest Asian heroin being brought back into Texas from troops returning from Afghanistan. Austin street outreach workers report Afghan heroin is also available. Dallas DEA reports that a gram of opium costs between \$23-\$50.

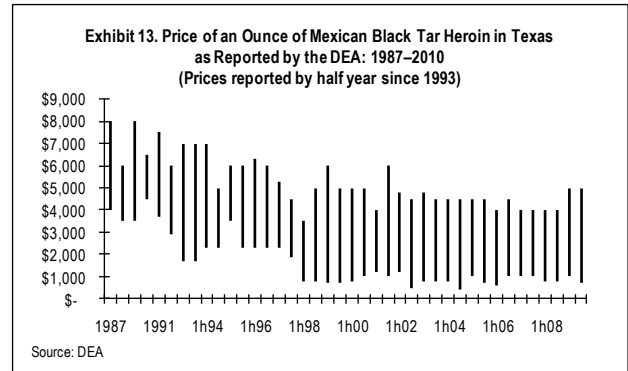


Exhibit 14 shows the purity and price of heroin purchased by the DEA in four Texas cities under the DMP. Heroin is much purer at the border in El Paso and decreases in purity and increases in price as it moves north, since it is “cut” with other products as it passes through the chain of dealers.

Exhibit 14. Price and Purity of Heroin Purchased in Dallas, El Paso, Houston, and San Antonio by the DEA: 1995–2009

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Dallas Purity (%)	6.8	3.5	7.0	11.8	14.0	16.0	13.4	17.2	13.3	16.3	11.6	17.7	20.6	13.5	21.6
Price/Milligram Pure	\$2.34	\$6.66	\$4.16	\$1.06	\$1.01	\$0.69	\$1.36	\$0.75	\$0.98	\$0.90	\$1.11	\$1.10	\$1.09	\$0.93	\$0.91
El Paso Purity (%)					56.7	50.8	41.8	40.3	44.7	50.5	44.7	44.8	39.8	41.1	30.5
Price/Milligram Pure					\$0.49	\$0.34	\$0.44	\$0.27	\$0.40	\$0.27	\$0.40	\$0.33	\$0.49	\$0.61	\$0.69
Houston Purity (%)	16.0	26.1	16.3	34.8	17.4	18.2	11.3	28.2	27.4	24.8	24.4	18.1	7.0	6.2	6.0
Price/Milligram Pure	\$1.36	\$2.15	\$2.20	\$2.43	\$1.24	\$1.14	\$1.51	\$0.64	\$0.45	\$0.44	\$1.11	\$1.90	\$1.66	\$3.05	\$3.42
San Antonio Purity (%)									8.2	6.4	11.2	17.4	7.1	7.6	8.7
Price/Milligram Pure									\$1.97	\$2.24	\$0.56	\$0.79	\$1.88	\$1.42	\$1.03

Source: DEA

OTHER OPIATES

The pain pill problem continues to increase with the spread of the “Houston Cocktail” or “Holy Trinity” of carisoprodol, alprazolam, and hydrocodone. The buprenorphine indicators are increasing, although at a lower level than other opioid drugs. The marketing of soft drinks that imitate drinking codeine cough syrup, such as “Lean” and “Drank” is a growing concern and “relaxation” brownies containing melatonin are sold in some stores. The indicators for poison control exposure calls, overdose deaths, and items

identified by DPS laboratories are ten times higher for hydrocodone, which is Schedule III, than for oxycodone, which is Schedule II (exhibit 15).

The “other opiates” group excludes heroin but includes opiates such as methadone, codeine, hydrocodone (Vicodin®, Tussionex®), oxycodone (OxyContin®, Percodan®, Percocet-5®, Tylox®), buprenorphine (Suboxone® and Subutex®), d-propoxyphene (Darvon®), hydromorphone (Dilaudid®), morphine, meperidine (Demerol®), and opium.

Exhibit 15. Indicators of Abuse of Opiates in Texas: 1998–2010

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Poison Control Center Cases of Abuse and Misuse													
Buprenorphine							12	27	33	61	82	110	148
Fentanyl			9	2	3	11	17	10	36	28	31	143	108
Hydrocodone	192	264	286	339	429	414	516	505	657	703	723	748	837
Methadone	17	15	30	27	50	41	69	69	73	91	141	129	131
Oxycodone	12	26	22	34	68	64	77	50	68	67	81	74	101
DSHS Treatment Admissions*													
Methadone ^a	55	69	44	52	75	86	63	91	101	113	160	145	132
"Other Opiates" ^a	553	815	890	1,386	2084	2794	3433	3482	3903	4529	5221	5844	4446
Deaths with Mention of Substance (DSHS)													
Other Opioids		122	168	224	313	370	369	402	577	572	535	555	539
Synthetic Narcotics		52	52	80	120	80	94	93	113	142	120	171	159
Methadone		27	62	89	141	161	164	205	222	224	198	183	178
Fentanyl ^b	8	5	4	7	22	10	32	30	43	49			
Hydrocodone ^b	5	25	52	107	168	140	201	269	400	360			
Oxycodone ^b	1	8	20	40	56	60	66	62	81	65			
*2007 cases were incomplete and numbers for these drugs in 2008 are not available.													
Drug Exhibits Identified by DPS Laboratories (NFLIS)													
Fentanyl	0	3	1	7	4	2	14	7	14	10	10	12	7
Hydrocodone	52	479	629	771	747	1212	1598	1789	2324	2812	2177	2346	3060
Methadone	1	19	22	42	58	70	130	133	169	209	181	193	172
Oxycodone	10	36	72	115	106	174	270	237	264	244	258	278	292
Buprenorphine					6	2	4	5	8	15	24	59	90

^a "Other Opiates" refers to those other than heroin.2009.

^bThe DSHS treatment data collection changed in 2010 with fewer clients being reported for all drugs after 2009.

Sources: Poison Control Centers, Department of State Health Services (analysis by J. C. Maxwell); and NFLIS.

The 2010 Texas secondary school survey queried about use of other opiates “to get high,” and reported that 5 percent had ever used hydrocodone, 12 percent reported ever having drunk codeine cough syrup, and 3 percent had ever used oxycodone in that manner.

The 2007–2008 NSDUH reported that 4.4 percent of Texans age 12 and older had used pain relievers nonmedically in the past year (as compared to 4.9 percent nationally).

Seven percent of all clients who entered publicly-funded treatment during 2010 used opiates other than heroin, as compared to 1 percent in 1995. Of the 2010 admissions, 142 used illegal methadone and 4,446 used other opiate drugs (exhibit 15). Those who reported a primary problem with other opiates differed from those who reported a problem with heroin. They were much more likely to be female (57 percent) and to be White (79 percent) (appendix 1). The clients with problems with illicit methadone were also more likely than heroin admissions to be female (48 percent) and 73 percent were White and 16 percent were Hispanic. Some 36 percent had no second drug problem, and of those who did have other problems, 17 percent had problems with other opiates, 14 percent had

problems with alcohol, and 11 percent with sedatives, and 8 percent with heroin.

Exhibit 15 shows the number of deaths involving methadone, “other opiates,” and “other synthetic narcotics.” These are the International Classification of Diseases (ICD) categories which are used to show the causes of death, and other than “methadone,” they do not provide data on the specific opiate drug involved. Because data were available from copies of the death certificates prior to 2008, those numbers are included in Exhibit 15 to show which of these drugs has posed larger problems in the past.

The proportion of deaths involving only methadone or methadone plus alcohol has decreased from 58 percent of all methadone deaths in 1992 to 39 percent in 2007, while those involving combinations with illicit drugs decreased from 25 to 15 percent, and those involving combinations with prescription or licit drugs increased from 17 to 46 percent. The number involving overdose deaths of clients in narcotic treatment programs has remained level, at 11 of all the methadone deaths in 1993 and 11 in 2007. In 2010, 14 percent of all deaths involving methadone were for only methadone, 29 percent also involved benzodiazepines, 12 percent involved

other opiates or synthetic narcotics, and 6 percent also involved heroin. Average age was 39; 65 percent were male; 76 percent were White, 17 percent were Hispanic, and 6 percent were Black.

There were also 540 deaths involving other opiates, of which 47 percent involved no other drug, while 41 percent also involved benzodiazepines. Of the deaths involving other opiates, 82 percent were White, 10 percent Hispanic, and 6 percent Black; average age was 43 and 55 percent were male.

Drinking codeine cough syrup with promethazine mixed with a soda, Karo® syrup, and flavored with Jolly Rancher® candies has been a problem in parts of Texas, especially around Houston, since 1999. Its popularity has been linked with the emergence of Hip Hop music, which is often referred to as “Sippin’ on Syrup” or “Purple Rain.” In 2010, “relaxation” soft drinks in bottles and purple cans which imitate the mixture are available in convenience stores, including three named “Drank®,” “Sippin’ Syrup®,” and “Lean®.” These contain valerian roots, melatonin, and rose hips, which are reported to produce a “downer” or “sleepy” effect. Comments on the cans include “slow your roll,” “slow motion potion,” and “euphoric thoughts, extended relaxation, experience calmness.” Another version with alcohol is named “Sizzurp®” and is marketed in purple glass bottles that contain cognac, vodka, and fruit flavoring. Promethazine or phenergan cough syrup with codeine sold for \$20 an ounce in Tyler and San Antonio. Promethazine and codeine cough syrup continue to be trafficked and abused in the Houston area.

“Relaxation” or “lazy” brownies containing melatonin are being sold in some stores.

Hydrocodone sold for \$4-\$5 per pill in Dallas, \$1-\$5 in El Paso, and \$5-\$7 in Houston, and OxyContin® costs \$1 per mg in Dallas and Houston and \$10 per tablet in San Antonio. Dilaudid® sold for \$40-\$60 and a 10mg methadone tablet cost \$7-\$10 in Fort Worth, \$2-\$5 in El Paso, and \$5-\$10 in San Antonio.

In the Dallas DEA FD, hydrocodone, alprazolam, and promethazine with codeine are the most commonly diverted drugs. Other popular drugs are carisoprodol, diazepam, Adderall®, methadone, and oxycodone. Online pharmacies or website are now affiliating with local pharmacies to fill and ship the prescriptions. There has also been an increase in the number of individuals who are “doctor shopping” for hydrocodone, alprazolam, and codeine. In addition, DEA in Dallas has identified Sibutramine, a Schedule IV controlled substance that is used as an appetite suppressant, in shipments from China.

Steroids also come from China and Thailand

Houston DEA FD reports prescriptions for the “Houston Cocktail” or “Holy Trinity” (alprazolam, hydrocodone, and carisoprodol) sell for \$825-\$950, and six doctors at Houston area “pain clinics” wrote between 23,907 to 43,328 prescriptions for those drugs in a 15-month period. DEA reported that from 2006-2008, of 1,533 deaths, 1,020 involved pharmaceutical drugs, and in 2009, of 467 deaths in Harris County, 78 percent contained pharmaceutical drugs.

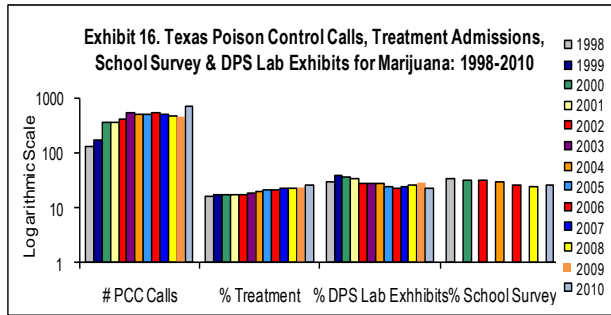
The primary source in the Houston DEA FD is through prescriptions obtained from rogue pain management clinics operating in Houston and South Texas. In the last half of 2010, 20 practitioners and pharmacists surrendered their DEA registration numbers. These “clinics” operate on a “cash only” basis, with the individual paying \$80-\$120 for an office visit in which they received a 30-day supply of controlled drugs. Homeless individuals often participate in this practice, turning the prescriptions over to diversion crews who pay the “patients” in cash. Practitioners in some of these clinics attempt to avoid detection by writing one prescription with two of the “Cocktail” drugs and two non-controlled medications on one prescription and then issuing a second prescription with the third cocktail drug and another non-controlled substance. Prescription fraud continues via faxed-in prescriptions and use of drive-through pharmacies which avoid camera detection. There have also been increasing instances of mail courier theft where pharmaceuticals are intercepted in transit.

The El Paso DEA FD reported hydrocodone, methadone, morphine, oxycodone, and percocet were available and there have been increased seizures of these drugs. In addition, Mexican pharmacies on the border can sell medications over-the-counter which require prescriptions in the U.S. and these pharmacies continue to be popular sources of pain medications for El Paso residents.

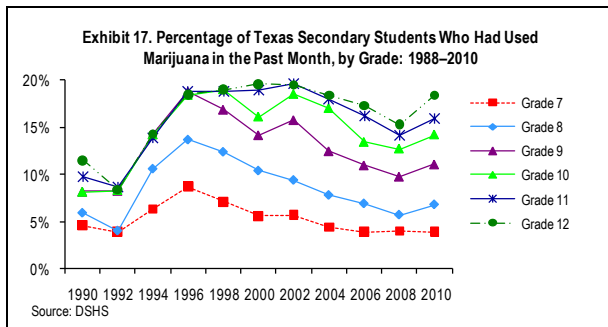
The number of exhibits of opioids examined by the DPS laboratories has increased over time, with some variations between years. Hydrocodone and methadone peaked in 2007, while oxycodone peaked in 2009 (exhibit 15).

MARIJUANA

Marijuana indicators remain mixed, with the severity of problems among noncoerced marijuana treatment admissions notable. Hashish use is being reported in some areas. Marijuana homologs such as “Spice” are a growing problem.



The indicators have varied over the years (exhibit 16). Among Texas students in 2010 in grades 4–6, 1.9 percent had ever used marijuana, with 1.4 percent reporting use in the past school year. Among Texas secondary students (grades 7–12), 26 percent had ever tried marijuana, and 11 percent had used in the past month. Past-month use increased between 2008 and 2010 (exhibit 17).



The 2010 survey found that of those youths who used marijuana, 63 percent smoked “blunts” at least half of the time, as compared to 58 percent who smoked “joints” at least half of the time. The relationship between tobacco use, marijuana use, and cigars was also seen in the finding that of those youths who had ever used tobacco and never used marijuana, 5 percent had ever used cigars. In comparison, of those who had ever used tobacco and ever used marijuana, 77 percent had ever used cigars.

In 2009, the YRBS reported that 37 percent of Texas high school students in grades 9–12 had ever smoked marijuana, as compared to 38 percent in 2007, 42 percent in 2005, and 41 percent in 2001.

The 2005 Texas college survey reported that 37 percent of students had ever used marijuana, and 11 percent had used in the past month. The 2007–2008 NSDUH estimated that 8 percent of Texans age 12 and older had used marijuana in the past year (compared to 10 percent nationally), with 4 percent using in the past month (compared to 6 percent nationally).

The Texas Poison Center Network reported there were 133 calls of exposure to marijuana in 1998 as compared to 693 in 2010 (exhibit 16).

Marijuana was the primary problem for 27 percent of admissions to treatment programs in 2010 (appendix 1), as compared to 8 percent in 1995. While 27 percent in 2010 reported no second substance abuse problem, 38 percent had a problem with alcohol, and 10 percent had a problem with powder cocaine. The average age was 23. Approximately 32 percent were Hispanic, 32 percent were White, and 33 percent were Black. Sixty-six percent had been referred from the criminal justice system. Our earlier study of marijuana admissions found that those who were referred from the criminal justice system were more likely to complete treatment, compared with non-coerced clients. Referred clients were more likely to have received less intensive forms of treatment and to have not used marijuana in the month prior to 90-day post-discharge follow-up. This study concluded that more public health information is needed on marijuana dependence and there is a need for increased availability of early and brief interventions in a variety of primary health care settings to reduce the late presentations of the more severely impaired voluntary clients (Copeland & Maxwell, 2007).

There have been recent reports of the use of hashish by youths in some communities.

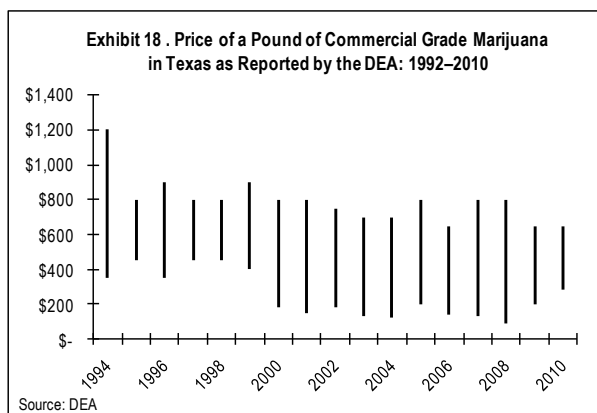
Marijuana was identified in 33 percent of all the exhibits analyzed by DPS laboratories in 2000, but in only 22 percent in 2010 (exhibit 16).

The El Paso DEA FD reported that marijuana is the controlled substance most frequently seized, often at Border Patrol checkpoints. It is readily available and most of the marijuana passing through the El Paso area is destined for other cities in the US. Large quantities are routinely seized in the area, but there is little marijuana cultivation in the area. In the Dallas/Fort Worth area, large-scale amounts of imported Mexican marijuana, domestically cultivated plants, and indoor-grow operations provide large amounts of high-quality cannabis. Low prices, high availability, and recurring reports of large seizures show the status of this drug. The Dallas office reported increased number of seizures of domestic outdoor cultivated marijuana, which may be due to a demand for the higher quality produced in domestic grows. While the Mexican marijuana sells for \$350-\$700 a pound, locally grown sells for \$400-\$800, and marketing the locally grown avoids transportation costs, border violence, and risk of detection at the border. The Houston DEA FD reported Mexican marijuana was the primary form,

with more seizures than last year. It is smuggled in through the Rio Grande Valley area. Hydroponic and indoor grow houses operated by Asian and Anglo males also exist in the Houston area. Marijuana is also transported into the Houston area from Canada and Washington State.

Hydroponic marijuana sold for \$3,500–\$5,000 per pound in Houston and \$3,000–\$6,000 in Dallas. The average price for a pound of Mexican marijuana was \$50–\$75 in Matamoras, \$400–\$500 in Houston, and \$80–\$300 in El Paso. Sinsemilla sold for \$300–\$500 per pound in Houston.

Exhibit 18 shows the overall decline in the price of a pound of marijuana since 1992, with the tightening of the range of high and low prices in 2009 and 2010.



MARIJUANA HOMOLOGS (SYNTHETIC MARIJUANA)

Marijuana homologs are herbal products that contain synthetic compounds such as JWH-018, JWH-073, CP-47, 497, and HU-210 that mimic the primary psychoactive ingredient in marijuana, tetrahydrocannabinol (THC). There are at least 184 different chemical combinations and the standard THC-detection tests do not yet include the ability to identify all these compounds. These products are sold under a wide variety of names, including K2, K2 summit, spice, spice gold, spice silver, spice diamond, genie, zohai, space, skunk, yucatan fire, halo, black mamba, damiana, drolle, blaze, red X dawn. They are available through the Internet and in specialized stores and are marketed as herbal incense. When smoked, they give users a marijuana-like high. On March 1, 2011, DEA placed five of the synthetic cannabinoids on Schedule I for one year, and on April 22, 2011, Texas also made these substances Schedule I.

Symptoms associated with use of the marijuana homologs include tachycardia, respiratory issues,

agitation, confusion, drowsiness, hallucinations, delusions, nausea and vomiting, ocular problems, and other problems. The substances may also produce withdrawal and dependence in users. In 2010, the Texas poison center network received 464 calls involving human exposures to the substances, and to June 1, 2011, there have been 229 calls. Of all the calls in 2010 and 2011, the age range was between 12 and 67 years; 41 percent were under age 20; 74 percent were male; and 88 percent had either misused or abused the substance.

The Texas laboratories in 2010 identified 34 exhibits containing JWH-018 (1-pentyl-3-(1-naphthoyl)indole), one exhibit containing JWH-19 (1-hexyl-3-(naphthalen-1-oyl)indole), and three exhibits containing JWH-250 ([1-pentyl-3-(2-methoxyphenylacetyl)indole]).

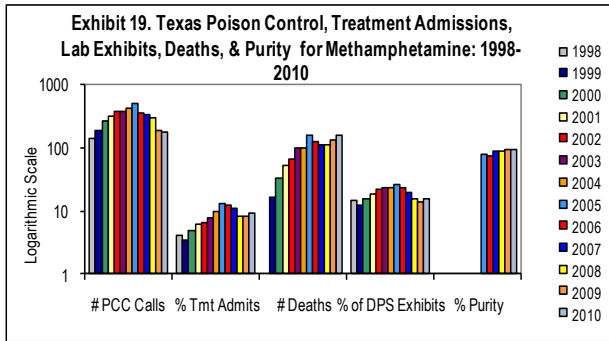
STIMULANTS

Amphetamine-type substances come in different forms and with different names. “Speed” (“meth,” “crank”) is a powdered methamphetamine that is sold in grams or ounces. It can be snorted or injected. “Pills” can be pharmaceutical grade stimulants such as dextroamphetamine, Dexedrine®, Adderall®, Concerta®, Vyvanse®, Ritalin® (methylphenidate), or phentermine, or they can be methamphetamine powder that has been pressed into tablets and sold as amphetamines, “Yaba,” or ecstasy. Stimulant pills can be taken orally, crushed for inhalation, or dissolved in water for injection.

“Ice,” also known as “Crystal” or “Tina” or “Shards,” is methamphetamine that has been “washed” in a solvent to remove impurities. It has longer-lasting physical effects and purity levels above 80 percent. Ice can be smoked in a glass pipe, “chased” on aluminum foil, mixed with marijuana and smoked through a “bong,” or mixed with water and injected.

No shortages of methamphetamine have been reported, and indicators are beginning to move upward. Local “cooking” of Ice using over-the-counter pseudoephedrine with the “one pot” or “shake and bake” method is common in the production of small amounts, but 69 percent of the methamphetamine in the U.S. is coming from Mexico, where the P2P method has been modified to produce a product that has a potency of 77 percent and a purity of 89 percent across the U.S. and a purity of 94 percent in Texas. Interviews with methamphetamine users entering treatment continue to show the extent of their mental and physical impairments and their need for intensive

and extended treatment.



The Texas secondary school survey reported that lifetime use of stimulants, or “uppers,” was 5 percent, and past-month use was 2 percent in 2010. Three percent responded positively to a separate question regarding lifetime use of methamphetamine, and 1 percent reported past-month use. The 2009 YRBS reported lifetime use of methamphetamine by Texas high school students was 4 percent, as compared to 7 percent in 2007, 7 percent in 2005 and 8 percent in 2001. The 2005 Texas college survey reported that 10 percent had ever used stimulants and 2 percent had used in the past month.

As exhibit 19 shows, all methamphetamine indicators except purity decreased after 2005 when the precursor regulations were implemented. There were 144 calls to Texas poison control centers involving exposure to methamphetamine in 1998, 336 in 2006, 315 in 2007, 298 in 2008, 190 in 2009, and 160 in 2010 (exhibit 19).

Exhibit 20. Characteristics of Clients Admitted to DSHS-Funded Treatment with a Primary Problem of Amphetamines or Methamphetamines by Route of Administration: 2010

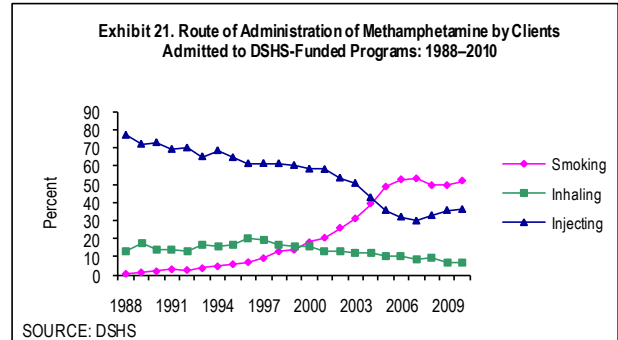
	Inject	Inhale	Smoke	Oral	All ^a
# Admissions	2,161	425	3,083	229	5,954
% of Stimulant Admits	36	7	52	4	100
Lag-1st Use to Tmt-Yrs.	15	13	11	12	12
Average Age-Yrs.	33	35	32	32	33
% Male	48	45	41	37	44
% Black	1	2	3	3	2
% White	92	85	83	85	87
% Hispanic	4	7	11	9	9
% CJ Involved	57	63	58	59	57
% Employed Full Time	10	21	16	18	14
% Homeless	15	4	7	4	10

^aTotal includes clients with “other” routes of administration

Source: Texas Department of State Health Services; analysis by J. C. Maxwell

Methamphetamine/amphetamine admissions to treatment programs increased from 3 percent of all admissions in 1995 to 11 percent in 2007 and dropped to 8 percent in 2009 and then rose slightly to 9 percent in 2010. The average age of clients admitted for a primary problem with these stimulants increased from 26 years in 1985 to 33 in 2010 (exhibit 20). The proportion of White clients rose from 80 percent in 1985 to 87 percent in 2010. Unlike the other drug categories, more than one-half of the clients entering treatment were women (56 percent). Clients with a primary problem with methamphetamine reported secondary problems with marijuana (32 percent), alcohol (23 percent), and powder cocaine (9 percent); 18 percent reported no secondary substance abuse problem. GHB was also mentioned: of those clients who came to treatment with a problem with GHB, 57 percent reported that methamphetamine was their primary problem. In addition, methamphetamine dealers in the Dallas area are reported to also be selling GHB.

Users of amphetamines or methamphetamine tend to differ depending on their route of administration, as exhibit 20 shows. Methamphetamine injectors were more likely to be homeless and not employed fulltime.



Smoking Ice peaked in 2007 at 53 percent (exhibit 21). Since the precursor bans, the availability of the different forms of methamphetamine has changed, with the percentage smoking Ice decreasing slightly and injecting increasing in 2009. However, in 2010, smoking increased to 52 percent, which is an indication the supply of Ice has increased.

Exhibit 19 shows the number of deaths due to all psychostimulants; data specifically for methamphetamine was not available for 2008, but earlier analysis looking only for amphetamines or methamphetamine found there were 16 deaths in 1999, 161 in 2005, 128 in 2006, 114 in 2007, 111 in 2008, 134 in 2009, and 157 in 2010. Of the decedents in 2010, 71 percent were male; 83 percent were White, 15 percent were Hispanic, 1

percent Black; and the average age was 40.

Methamphetamine and amphetamine together represented 16 percent of all items examined by DPS laboratories in 2000 and reached a peak of 25 percent in 2005 before dropping to 14 percent in 2009 and increasing slightly to 15 percent in 2010 (exhibit 19). Only 0.7 percent was amphetamine.

The National Clandestine Laboratory Database reported that 1,773 methamphetamine laboratories were seized in Texas in 1999, 429 in 2000, 619 in 2001, 547 in 2002, 677 in 2003, 452 in 2004, 270 in 2005, 132 in 2006, 79 in 2007, 112 in 2008, 10 in 2009, and 26 in 2010.

There are a number of recipes for making methamphetamine in local labs. The most common method using pseudoephedrine was the "Birch" or "cold method," which uses ephedrine, red phosphorus, and iodine crystals. This recipe produces d-methamphetamine (dextromethamphetamine). Another method, the "Nazi method" includes ephedrine or pseudoephedrine, lithium, and anhydrous ammonia. The most commonly diverted pills are 60-milligram pseudoephedrine tablets such as Sudafed, Walfeds, Xtreme Relief, Mini-Thins, Zolzina, Two-Way, and Ephedrine Release.

Although Texas law requires purchasers of pseudoephedrine products to register when they buy the product, not all the registries are computerized. Some methamphetamine "cooks" are returning to "smurfing" to obtain pseudoephedrine by paying other people, including the homeless, to purchase the product from every available outlet.

Another method of producing methamphetamine is the "one pot" or "shake and bake" method. All the necessary chemicals are placed in a single container such as a two-liter soda bottle or Coleman fuel can. The container is turned upside down or shaken to start the chemical reaction. Some recipes use dry ammonia nitrite and cough syrup rather than liquid anhydrous ammonia and pseudoephedrine pills.

The process used to produce most of the methamphetamine found in Texas in 2010 is the through an older process that uses precursors which are not longer available in the U.S. Prior to precursor regulations in the 1980s, most illicit labs in Texas used the "P2P method," which is based on 1-phenyl-2-propanone. According to DEA, the P2P method is the primary method now used to produce Ice or Shards in Mexico, where the precursor chemicals for P2P are still available. In the fourth

quarter of 2010, 69 percent of the U.S. samples examined started with P2P, with only 9 percent of the samples from the phosphorus-iodine method. The Mexican P2P process produces a combination of d-methamphetamine and l-methamphetamine (levomethamphetamine). The l-isomer does not possess the same addictive potential of d-methamphetamine. Methamphetamine with only the d-isomer would be 100 percent potent, and methamphetamine with only the l-isomer would be 0 percent potency. In the fourth quarter of 2010, DEA's Special Testing and Research Laboratory reported that the potency of the items examined was 77 percent and the purity was 89 percent.

Ice can be cut with methylsulfonylmethane (MSM). MSM is available in 5-gallon quantities at local feed stores, and it is added to the Ice and heated. In Tulsa, MSM cost \$17.95 per pound. The mixture of Ice and MSM is spread out to dry like peanut brittle and then crushed up to look like a pure Ice mixture. The typical first cut of a pound of methamphetamine with MSM can yield two pounds of medium-purity methamphetamine that retains the same crystalline appearance. In addition, DEA reports powdered Shards of Ice are being smuggled into Texas and then recrystallized prior to sale. In the fourth quarter of 2010, 35 percent of the DEA samples contained MSM.

Dallas DEA FD reports methamphetamine is more readily available than six months ago. The amount of methamphetamine seized and the number of exhibits increased during the second half of the year. At the wholesale level, distribution is by Mexican drug trafficking organizations, particularly La Familia Michoacana, with retail distribution by Mexican and independent organizations. The Houston DEA FD reported high and stable availability of both Mexican and U.S.-produced methamphetamine. Ice is more prominent than powder but clandestine labs producing one to two ounces continue to operate in rural farm areas. The "shake and bake" method using two-liter soda bottles continues. Quantities of one pound or more are usually stored in plastic food and storage containers, while small portions are packaged in small plastic baggies.

The El Paso DEA FD reports Mexican methamphetamine is transshipped through the area while local users rely on small clandestine laboratories in rural areas using "smurfers" to obtain the pseudoephedrine. The laboratory seizures have declined because of the increased availability of the Mexican product.

Street outreach workers in Austin report the meth

made by local cooks using pseudoephedrine is of poor quality and resembles the old “trash bathtub crank,” while the methamphetamine coming in from Mexico is pure and leaves little residue in the spoon when mixed with water for injecting.

A pound of powder methamphetamine sold for \$12,000 in Dallas, \$11,000-\$15,000 in Brownsville, and \$20,000-\$25,000 in San Antonio. A pound of Ice sold for \$22,500-\$25,000 in San Antonio and \$16,500-\$19,000 in Dallas. An ounce of Ice sold for \$1,200-\$1,600 in the Dallas Field Division, a change from \$1,350-\$1,500 a year ago. An ounce also sold for \$1,000-\$2,000 in Houston.

The Dallas FD reports more local clandestine laboratories have been encountered. In Fort Worth, a box of 60 milligram, 36-count pseudoephedrine pills sold for \$18, and in Houston, a bottle with 24 tablets cost \$25.

DEPRESSANTS

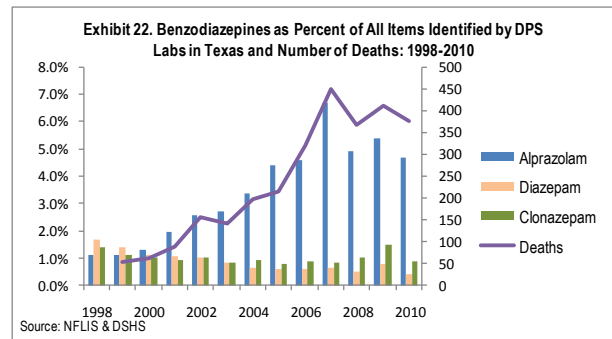
The depressant category includes three groups of drugs: barbiturates, such as phenobarbital and secobarbital (Seconal®); nonbarbiturate sedatives, such as over-the-counter sleeping aids, chloral hydrate, and tranquilizers; and benzodiazepines, such as diazepam (Valium®), alprazolam (Xanax®), flunitrazepam (Rohypnol®), clonazepam (Klonopin® or Rivotril®), flurazepam (Dalmane®), lorazepam (Ativan®), and chlor-diazepoxide (Librium® and Librax®). Rohypnol® is discussed separately in the Club Drugs section of this report.

The 2010 Texas secondary school survey reported lifetime use of downers was 6 percent, and past-month use was 2 percent. Five percent had ever used alprazolam and 2 percent had ever used diazepam. The 2005 Texas college survey reported 9 percent had ever used sedatives, and 2 percent had used them in the past month.

About 1.4 percent of the clients entering DSHS-funded treatment in 2010 had a primary problem with barbiturates, sedatives, or tranquilizers (appendix 1). Of these, 853 had problems with benzodiazepines, 286 had problems with sedatives, and 29 with barbiturates. Of those with problems with benzodiazepines, 63 percent were female; 64 percent were White, 19 percent Hispanic, and 14 percent Black. They were users of multiple drugs: only 13 percent reported no other problem substance, as compared to 28 percent of users of all other drugs. Of the benzodiazepine clients, 25 percent reported a secondary problem with marijuana, 17 percent with alcohol, 9 percent with other opiate drugs, and 8 percent with powder

cocaine.

Exhibit 22 shows the increases in deaths due to benzodiazepines from 55 in 1999 to 375 in 2010. Of those dying of benzodiazepines, average age was 41; 56 percent were male; 80 percent were White, 12 percent were Hispanic, and 5 percent were Black.



Alprazolam, clonazepam, and diazepam were among the 11 most commonly identified substances according to the 2010 DPS lab reports, although none of them represent more than 5 percent of all items examined in 2010 (exhibit 22).

Alprazolam tablets sold for \$4-\$5 in San Antonio, \$10 in El Paso, \$2-\$4 in Dallas, \$2-\$3 in Houston, and \$3-\$5 in Fort Worth.

Alprazolam use has increased in Houston, it is the most common pill mentioned in San Antonio, according to street outreach workers, and it is one of the three ingredients, along with hydrocodone and carisoprodol, that form the “Houston Cocktail” or “Holy Trinity.”

CLUB DRUGS AND HALLUCINOGENS

Exhibit 23 shows the demographic characteristics of clients entering DSHS-funded treatment programs statewide with a problem with a club drug. The row “Primary Drug=Club Drug” shows the percentage of clients citing a primary problem with the club drug shown at the top of the column. The rows under the heading “Other Primary Drug” show the percentage of clients who had a primary problem with another drug, such as marijuana, but who had a secondary or tertiary problem with one of the club drugs shown at the top of the table. Note that the treatment data include a broader category of “Hallucinogens,” which includes lysergic acid diethylamide (LSD), dimethyltryptamine (DMT), STP (phencyclidine and 2,5-Dimethoxy-4-methylamphetamine), mescaline, psilocybin, and peyote.

Among the clients shown in exhibit 23, the gamma hydroxybutyrate (GHB) clients were the most likely to be White and the oldest, phencyclidine (PCP) clients were the most likely to be Black, Rohypnol® clients were the most likely to be Hispanic and the youngest. Users of hallucinogens, ecstasy, and

Rohypnol were more likely to have primary problems with marijuana. Users of GHB tended to have a primary problem with methamphetamine (37 percent) and the primary problem for users of PCP was PCP 52 percent).

Exhibit 23. Characteristics of Clients Admitted to DSHS-Funded Treatment with a Primary, Secondary, or Tertiary Problem with Club Drugs: 2010

Club Drug	GHB	Hallucinogens	Ecstasy	PCP	Rohypnol	Ketamine
# Admissions	91	440	947	882	163	11
Average Age (Years)	32	28	23	29	16	26
% Male	54	65	60	55	71	73
% Black	4	36	34	84	0	9
% White	90	48	39	9	1	64
% Hispanic	4	14	25	6	98	27
% Criminal Justice Involved	52	65	76	63	74	55
% Primary Drug=Club Drug	13	23	14	52	0	0
Other Primary Drug						
% Marijuana	2	35	53	23	71	18
% Alcohol	13	21	9	8	9	0
% Methamphet/Amphetamines	37	4	2	0	0	27
% Powder Cocaine	0	4	7	7	3	9
% Crack Cocaine	26	5	6	6	1	18
% Heroin	2	3	2	0	13	9
% Other Opiates	2	2	2	1	1	9

Source: Texas Department of State Health Services; analysis by J. C. Maxwell

Benzylpiperazine (BZP) and TFMPP

N-Benzylpiperazine (BZP) has pharmacological effects that are qualitatively similar to those of amphetamine. It is a Schedule I drug that is often taken in combination with 1-(3-trifluoromethylphenyl) piperazine (TFMPP), a noncontrolled substance, in order to enhance its effects as a substitute for MDMA. It is generally taken orally, but can be smoked or inhaled. Piperazines are a broad class of chemicals which include several stimulants (BZP, TFMPP, etc) as well as anti-vertigo agents (cyclizine, meclizine) and others (sildenafil/Viagra®).

There were 19 BZP and two TFMPP exhibits identified by DPS labs in 2007, 312 BZP and 66 TFMPP in 2008, 436 BZP and 87 TFMPP in 2009, and 528 BZP and 138 TFMPP in 2010.

Dextromethorphan (DXM)

The most popular dextromethorphan (DXM)

products are Robitussin-DM®, Tussin®, and Coricidin Cough and Cold Tablets HBP®, which can be purchased over-the-counter and can produce hallucinogenic effects if taken in large quantities. Coricidin HBP® pills are known as “Triple C” or “Skittles.”

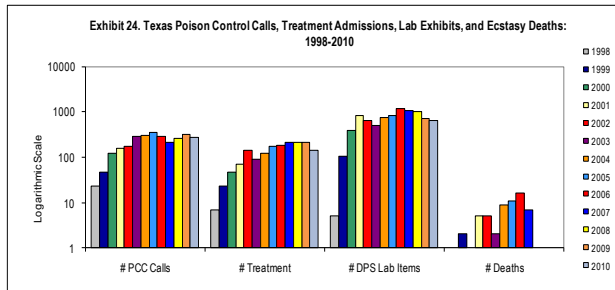
The 2010 Texas school survey reported that 5 percent of secondary students indicated they had ever used DXM, and 2 percent had used in the past year. The 2005 Texas college survey found that 5 percent had ever used DXM, and less than 1 percent had used it in the past month.

Poison control centers reported the number of abuse and misuse cases involving DXM rose from 99 in 1998 to 511 in 2010. The average age was 21. The number of cases involving abuse or misuse of Coricidin HBP® was seven in 1998, 189 in 2005, 288 in 2006, 483 in 2007, 158 in 2008, 126 in 2009, and 146 in 2010. The average age in 2010 was 18, which shows that youth can easily access and misuse this substance.

There were 12 deaths in 2007 in which DXM was one of the substances mentioned on the death certificate.

DPS labs examined two substances in 1998 that were DXM, compared with 13 in 1999, 36 in 2000, 18 in 2001, 42 in 2002, 10 in 2003, 15 in 2004, 10 in 2005, 12 in 2006, five in 2007, nine in 2008, 0 in 2009, and 20 in 2010.

Ecstasy (MDMA, MDA)



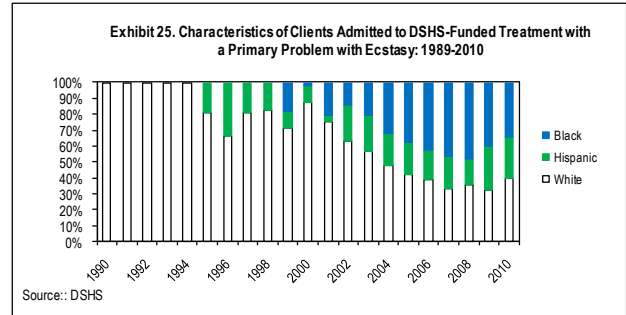
The 2010 Texas secondary school survey reported that lifetime ecstasy use dropped from a high of 9 percent in 2002 to 5 percent in 2008 but increased to 7 percent in 2010, while past-year use dropped from 3 to 2 and back to 3 percent during that time.

The YRBS reported that 9 percent had ever used ecstasy in 2009, as compared to 10 percent in 2007 and 8 percent in 2005. The 2005 Texas college survey found that 9 percent of college students had ever used ecstasy, and less than 1 percent had used in the past year.

The Texas Poison Centers reported 23 calls involving misuse or abuse of ecstasy in 1998, compared with 46 in 1999, 119 in 2000, 155 in 2001, 172 in 2002, 284 in 2003, 302 in 2004, 343 in 2005, 292 in 2006, 232 in 2007, 293 in 2008, 310 in 2009, and 284 in 2010 (exhibit 24). In 2010, the average age was 21.

Exhibit 25 shows that ecstasy has spread outside the White rave scene and into the Hispanic and Black communities.

Ecstasy is often used in combination with other drugs, and the increase in use and abuse of the drug is demonstrated in the increases in the numbers of clients seeking treatment who report a primary, secondary, or tertiary problem with ecstasy (exhibit 24). The most common combination was use with marijuana.



The DPS labs identified methylenedioxy-methamphetamine (MDMA) in five exhibits in 1998, 107 exhibits in 1999, 387 in 2000, 817 in 2001, 63 in 2002, 490 in 2003, 737 in 2004, 821 in 2005, 1,173 in 2006, 1,134 in 2007, 1,011 in 2008, 703 in 2009, and 640 in 2010 (exhibit 24).

Methylenedioxyamphetamine (MDA) was identified in no exhibits in 1998, 31 in 1999, 27 in 2000, 60 in 2001, 106 in 2002, 94 in 2003, 67 in 2004, 85 in 2005, 80 in 2006, 43 in 2007, 63 in 2008, seven in 2009, and 11 in 2010.

The Dallas DEA FD reported the primary source of ecstasy in the area was from Canada, trafficked by Asian, younger White, African American, and Hispanic males. The mid-level distributors were reported to be quick to establish new sources and the availability of the drug (or counterfeits) was expected to remain readily available.

According to the Houston DEA FD, ecstasy availability was moderate and stable, with Asian and Caucasian traffickers controlling distribution of this drug, which comes from Canada and Europe. The El Paso DEA FD reported an increase in RAVE parties using ecstasy, and due to the violence in Ciudad Juarez, young adults are staying on the US side to party rather than participating in the night life across the border. The drug is brought in from Ciudad Juarez in 200-800 pill batches.

Single dosage units of ecstasy sold for \$5-\$20 in Houston, \$6 in McAllen, and \$20-\$25 in Dallas.

Gamma Hydroxybutyrate (GHB), Gamma Butyrate Lactone (GBL), 1-4 Butanediol (1,4 BD)

The 2005 Texas college survey reported that 2 percent of the students had ever used GHB, and none reported past-month use.

The number of cases of misuse or abuse of GHB or its precursors reported to the Texas Poison Center Network was 110 in 1998, 150 in 1999, 120 in 2000, 119 in 2001, 100 in 2002, 66 in 2003, 84 in 2004, 62

in 2005, 43 in 2006, 56 in 2007, 49 in 2008, 46 in 2009, and 55 in 2010. The average age of the abusers in 2010 was 28.

Adults and adolescents with a primary, secondary, or tertiary problem with GHB, GBL, or 1,4 BD have been admitted to DSHS-funded treatment. In 2010, clients who used GHB tended to be older (average age 32) and were more likely to be White (90 percent) (exhibit 23). GHB users were more likely to have used the so-called “hard-core” drugs: 37 percent had a primary problem with amphetamines or methamphetamine. Because of the sleep-inducing properties of GHB, users may use methamphetamine to stay awake while they are “high” on GHB, or they use GHB to “come down” from their use of methamphetamine. Others report methamphetamine dealers also sell GHB in combination.

There were three deaths that involved GHB in 1999, compared with five in 2000, three in 2001, two in 2002, two in 2003, three in 2004, three in 2005, one in 2006, and two in 2007.

The Dallas DEA FD reports GHB is manufactured in 5 to 10 gallon quantities that sell for \$600–\$1,100 per gallon by Caucasian males in the Dallas area who are also involved in the sale of methamphetamine.

There were 18 items identified by DPS labs as being GHB in 1998, compared with 112 in 1999, 45 in 2000, 34 in 2001, 110 in 2002, 150 in 2003, 99 in 2004, 92 in 2005, 89 in 2006, 56 in 2007, 57 in 2008, 36 in 2009, and 39 in 2010. There were no items identified as GBL in 1998, compared with four in 1999, seven in 2000, seven in 2001, nine in 2002, five in 2003, two in 2004, one in 2005, nine in 2006, none in 2007, three in 2008, and none in 2009 or 2010. There were no items identified as 1,4 BD in 1988, compared with four in 1989, four in 2000, 19 in 2001, five in 2002, and none in 2003, 2004, 2005, 2006, 2007, or 2008, with one in 2009 and none in 2010.

Ketamine

The 2005 Texas college survey found that 2 percent of the students had ever used ketamine, and none reported past-month use.

Eight cases of misuse or abuse of ketamine were reported to Texas Poison Control Centers in 1998, compared with seven in 1999, 15 in 2000, 14 in 2001, 10 in 2002, 17 in 2003, seven in 2004, five in 2005, three in 2006, one in 2007, one in 2008, one in 2009, and three in 2010.

In 2010, there were 11 admissions to treatment with

a primary, secondary, or tertiary problem with ketamine. The average age was 26; 73 percent were male; 64 percent were White, 27 percent were Hispanic, and 9 percent were Black (exhibit 23). None had a primary problem with ketamine, but 27 percent had a primary problem with methamphetamine and 18 percent had a primary problem with crack cocaine.

There were two deaths in 1999 that involved use of ketamine, compared with none in 2000, one in 2001, one in 2002, none in 2003, two in 2004, one in 2005, none in 2006, and two in 2007.

In 1998, two substances were identified as ketamine by DPS labs. There were 26 items identified in 1999, 49 in 2000, 120 in 2001, 116 in 2002, 85 in 2003, 79 in 2004, 19 in 2005, 140 in 2006, 154 in 2007, 76 in 2008, 56 in 2009, and 31 in 2010.

The Dallas DEA FD reports veterinarians and employees of pet clinics divert the drug for distribution or personal use.

Ketamine cost \$2,200–\$2,500 per liter in Fort Worth and \$65 per vial in Tyler, with a dose selling for \$20 per pill or gram in Tyler, \$20–\$40 in Lubbock, and \$15–\$20 in San Antonio for 0.2 grams,

Lysergic Acid Diethylamide (LSD) and Other Hallucinogens

The Texas secondary school survey showed that use of hallucinogens (defined as LSD, PCP, mushrooms, etc.) continued to decrease. Lifetime use peaked at 7.4 percent in 1996 and dropped to 4.6 percent in 2010. Past-month use dropped from a peak of 2.5 percent in 1998 to 1.5 percent in 2010. The 2005 Texas college survey found that 10 percent of college students had ever used hallucinogens, and less than 1 percent had used in the past month.

The Texas Poison Center Network reported 82 mentions of abuse or misuse of LSD in 1998, compared with 113 in 1999, 97 in 2000, 70 in 2001, 129 in 2002, 20 in 2003, 22 in 2004, 38 in 2005, 33 in 2006, 31 in 2007, 17 in 2008, 26 in 2009, and 18 in 2010. There were also 98 cases of intentional misuse or abuse of hallucinogenic mushrooms reported in 1998, 73 in 1999, 110 in 2000, 94 in 2001, 151 in 2002, 130 in 2003, 172 in 2004, 82 in 2005, 96 in 2006, 125 in 2007, 93 in 2008, 96 in 2009, and 85 in 2010. The average age in 2010 was 26 for the LSD cases and 23 for the mushroom cases.

Of the hallucinogen treatment admissions in 2010, the average age was 28; 54 percent were male; 27

percent were White, 13 percent were Hispanic, and 57 percent were Black. Fifty-eight percent were referred from the criminal justice system, and their primary drugs of abuse were marijuana or alcohol (exhibit 23).

Statewide, there were two deaths in 1999 and one in 2000 with a mention of LSD. No other deaths with a mention of LSD have been reported through 2008.

DPS labs identified 69 substances as LSD in 1998, compared with 406 in 1999, 234 in 2000, 122 in 2001, 11 in 2002, 10 in 2003, 25 in 2004, 14 in 2005, one in 2006, 29 in 2007, 19 in 2008, 33 in 2009, and 30 in 2010.

The Dallas DEA FD reports LSD is obtained from out-of-state sources and is available in blotter paper and liquid form. Psilocybin mushrooms come from out-of-state, primarily the Pacific Northwest and Florida. Mushroom spores are sent in kits with instructions to the purchaser on how to prepare and cultivate the mushrooms.

A dosage unit of LSD sold for \$1–\$10 in Dallas, \$7 in Lubbock, and \$8–\$12 in San Antonio. Psilocybin mushrooms sold for \$10–\$14 per gram in Lubbock.

Mephedrone

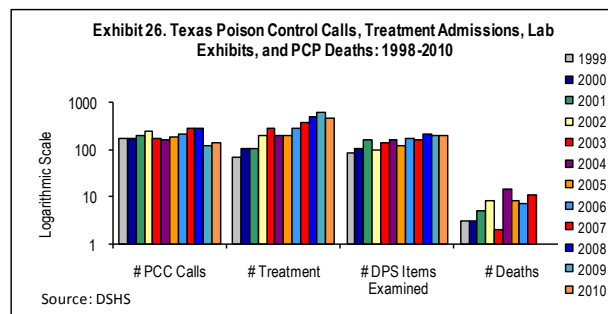
Mephedrone (4-methylmethcathinone or 4-MMC) is a designer substance of the phenethylamine class and a cathinone derivative from the khat plant (*Catha edulis*). Its pharmacology and structure are similar to methylenedioxymethamphetamine (MDMA) and amphetamine.

Methylenedioxypropylvalerone (MDPV) is another cathinone derivative with effects similar to cocaine and amphetamine. These drugs are usually supplied as a white, crystalline powder, although they also are available in tablet form and sold over the Internet and through “head shops,” convenience stores, gas stations, and truck stops, and are often labeled as bath salts, plant food, or insect repellent. They are sold under a variety of names such as Ivory Wave, Ocean, Charge +, White Lightning, Scarface, Hurricane Charlie, Red Dove, Cloud 9, White Dove, White Knight, White Ivory, Blue Silk, Zoom, Bloom, Lunar Wave, Vanilla Sky, Purple Wave, and Tranquility. Their street names include “Bubbles,” “Snow,” “Bath Salts,” “M-cat,” and “Meow Meow.” They are usually ingested or inhaled and they are reported to produce euphoria, increased energy, empathy, talkativeness, intensification of sensory experiences, and sexual arousal.

The Texas Poison Control Center Network reported 20 human exposures to mephedrone in 2010 and 133 in 2011 through June 1. Ages ranged from 16–57, with 17 percent under age 20. Seventy-four percent were male, 89 percent intended to abuse or misuse the drug; and common symptoms include tachycardia, hypertension, agitation, confusion, and hallucinations.

The DPS toxicology laboratories in 2010 reported three exhibits identified as 4-MMC and 63 as MDPV.

Phencyclidine (PCP)



The Texas Poison Center Network reported cases of “Fry,” “Amp,” “Water,” “Wet,” “Wack,” “PCP,” or formaldehyde. Often, marijuana joints are dipped in formaldehyde that contains PCP, or PCP is sprinkled on the joint or cigarette. The number of poison cases involving PCP increased from 102 in 1998 to 290 in 2008 and then declined to 125 in 2009 and 140 in 2010 (exhibit 26).

Exhibit 26 shows the increases in the number of clients entering treatment with a primary problem with PCP. Of the clients in 2010, 84 percent were Black, 55 percent were male, and 63 percent were involved in the criminal justice system. While 20 percent reported a primary problem with PCP, another 23 percent reported a primary problem with marijuana, which demonstrates the link between these two drugs (exhibit 23).

There were eight death certificates in 2007 that mentioned PCP (exhibit 26).

DPS labs identified 10 substances as PCP in 1998, 195 in 2009, and 205 in 2010 (exhibit 26).

According to the DEA, PCP costs \$5 per dipped cigarette, \$45–\$80 for an ounce retail, and a gallon cost \$700–\$1,200 in San Antonio.

The Dallas DEA FD reports PCP is obtained from sources in southern California and is shipped into the Dallas area in gallon containers and then

distributed primarily to African American users.

Rohypnol®

Rohypnol® (flunitrazepam) is a benzodiazepine that was never approved for use in the United States. The drug is legal in Mexico, but since 1996, it has been illegal to bring it into the United States. Rohypnol® continues to be a problem along the Texas–Mexico border. The 2010 secondary school survey found that students from the border area were about three times more likely to report lifetime Rohypnol® use than those living elsewhere in the State (6 percent versus 2 percent lifetime, and 2 percent versus 1 percent current use). Use in both the border and nonborder areas has declined since its peak in 1998. Among Texas college students in 2005, 1 percent reported lifetime use of Rohypnol®, and none reported past-month use.

The number of confirmed exposures to Rohypnol® reported to the Texas Poison Control Centers peaked at 102 in 1998, 22 in 2005, 10 in 2006, 11 in 2007, 12 in 2008, and 23 in 2009 and 2010.

The number of youths and adults admitted into treatment with a primary, secondary, or tertiary problem with Rohypnol® has varied: 247 in 1998, 364 in 1999, 324 in 2000, 397 in 2001, 368 in 2002, 331 in 2003, 221 in 2004, 198 in 2005, 278 in 2006, 272 in 2007, 207 in 2008, 287 in 2009, and 163 in 2010. In 2010, clients abusing Rohypnol® were the youngest of the club drug clients (age 16), and they were mostly Hispanic (98 percent), reflecting the availability and use of this drug along the border. Seventy-four percent were involved with the criminal justice system. Seventy-one percent reported a primary problem with marijuana, (exhibit 23).

DPS lab exhibits for flunitrazepam numbered 43 in 1988, 56 in 1999, 32 in 2000, 33 in 2001, 26 in 2002, 17 in 2003, 17 in 2004, 10 in 2005, nine in 2006, one in 2007, 0 in 2008, three in 2009, and one in 2010.

Rohypnol® sold for \$2–\$4 per pill in San Antonio in 2008.

OTHER ABUSED SUBSTANCES

Inhalants

The 2010 elementary school survey found that 11 percent of students in grades 4–6 had ever used inhalants and 8 percent had used in the school year. The 2010 secondary school survey found that 17 percent of students in grades 7–12 had ever used inhalants and 6 percent had used in the past month.

Inhalant use exhibits a peculiar age pattern not observed with any other substance. The prevalence of lifetime and past-month inhalant use was higher in the lower grades and lower in the upper grades. This decrease in inhalant use as students age may be partially related to the fact that inhalant users drop out of school early and are not in school in later grades to respond to school-based surveys. In addition, the Texas school surveys have consistently found that eighth graders reported use of more kinds of inhalants than any other grade, which may be a factor that exacerbates the damaging effects of inhalants and leads to dropping out.

The 2009 YRBS reported that 11.9 percent of Texas high school students had ever used inhalants, as compared to 12.9 percent in 2007, 13.2 percent in 2005, and 13.9 percent in 2001. Respondents to the 2005 Texas college survey reported 4 percent lifetime and 0.3 percent past-month use of inhalants.

Of the calls to the poison control centers in 2010 that involved human exposure to the inhalation of chemicals, there were 77 calls for misuse of air fresheners or dusting sprays containing tetrafluoroethane or difluoroethane (61 percent male, average age 20); 36 calls for exposure to automotive products such as carburetor cleaner, transmission fluid, and gasoline (81 percent male, average age 29); 32 calls for abuse or misuse of spray paint or toluene (69 percent male, average age 30); eight calls for helium gas (38 percent male, average age 14); five calls for deodorant or body spray (80 percent male, average age 15); four calls involving nitrous oxide (100 percent male, average age 27); four for “huffing” (100 percent male, average age 14); and three for amyl nitrate or “Poppers,” (66 percent male, average age 22).

Inhalant abusers represented 0.1 percent of the admissions to treatment programs in 2010. The clients tended to be male (58 percent) and average age of 24. Sixty percent were involved with the criminal justice system, the average education was 10.7 years, and 5 percent were homeless (appendix 1). Of the inhalant abusers, 14 percent reported no secondary drug problem, 52 percent had a second problem with marijuana, and 17 percent had a second problem with alcohol.

Steroids

The Texas school survey reported that 1.4 percent of all secondary students surveyed in 2010 had ever used steroids, and 0.5 percent had used steroids during the month before the survey. The 2009 YRBS

found lifetime use among Texas high school students was 2.9 percent, with use being 3.5 percent among boys and 2.3 percent among girls. In 2007, overall use was 3.9 percent, with 4.8 percent among boys and 3.0 percent among girls. The 2005 Texas college survey found less than 1 percent had ever used steroids, and 0.1 percent had used in the past month.

The NFLIS data for Texas reported testosterone was the steroid most likely to be identified in forensic testing, although it only constituted 0.1 percent of all the items tested in 2010. Dallas DEA reported that Mexico was the source for anabolic steroids and China was the source of human growth hormone (HGH).

Carisoprodol (Soma®)

Poison control centers confirmed that exposure cases of intentional misuse or abuse of the muscle relaxant carisoprodol (Soma®) increased from 83 in 1998 to 428 in 2009 and 374 in 2010; average age was 35.

In 2007, carisoprodol was mentioned on 208 death certificates, up from 51 in 2003. Only four of the 2007 death certificates mentioned only carisoprodol, all the others listed combinations of drugs. Hydrocodone and alprazolam were substances most often mentioned on the other carisoprodol death certificates. Of the 2007 deaths, 50 percent were male and the average age was 39.

DPS lab exhibits of carisoprodol reported to NFLIS increased from 13 in 1998 to 90 in 1999, 153 in 2000, 202 in 2001, 232 in 2002, 277 in 2003, 253 in 2004, 336 in 2005, 558 in 2006, 700 in 2007, 471 in 2008, 552 in 2009, and 747 in 2010. According to the Dallas DEA Field Division, Soma® and Soma® with codeine sold for \$2–\$5 per tablet. Carisoprodol is one of the most popular drugs in the illicit drug market in the Dallas-Fort Worth area, and is part of the combination with hydrocodone and alprazolam that is known as the “Houston Cocktail” or “Holy Trinity.”

DRUG ABUSE PATTERNS ON THE TEXAS-MEXICO BORDER

The 2010 Texas Secondary School Survey reported that students living in counties along the Texas border were more likely to report lifetime use of tobacco (33 percent versus 30 percent nonborder), powder cocaine (8 percent versus 4 percent), ecstasy (11 percent border and 6 percent nonborder), and Rohypnol® (6 percent versus 2 percent), while nonborder students were more likely

to report use of marijuana (27 percent versus 25 percent border). The results for other substances were similar: alcohol (63 percent versus 62 percent border), alprazolam (5 percent versus 4 percent border), methamphetamine (3 percent versus 3 percent), crack cocaine (2 percent versus 2 percent), and heroin (1 percent of non-border and 2 percent of border).

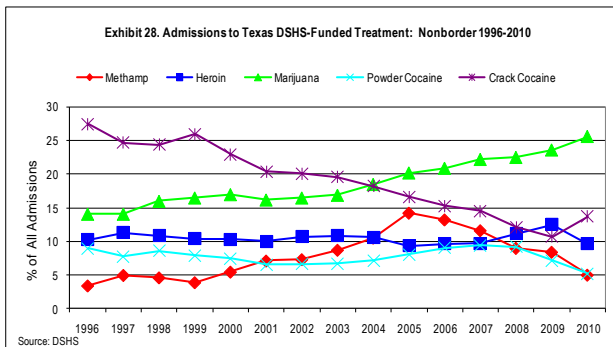
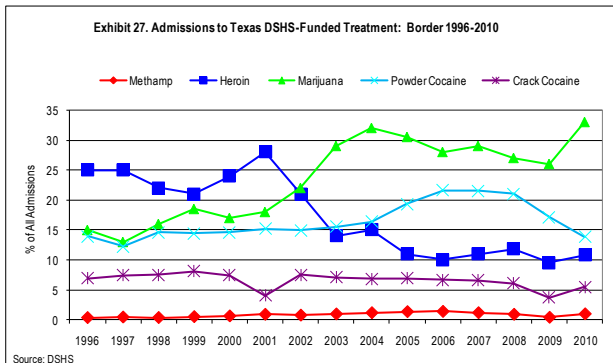
When asked which substances were very easy to obtain, border students reported Rohypnol® (10 percent versus 6 percent), while nonborder students reported tobacco (36 percent versus 32 percent), alcohol (43 percent versus 38 percent), and marijuana (26 percent versus 24 percent). Both groups reported powder cocaine equally easy to obtain (11 percent), as was crack cocaine (8 percent).

Different patterns were also seen in border and nonborder admissions to DSHS-funded treatment in 2010. Border clients were more likely to report problems with alcohol (33 percent versus 30 percent nonborder), powder cocaine (14 percent versus 5 percent), marijuana (33 percent versus 26 percent), and heroin (11 percent versus 10 percent). Nonborder clients were more likely to report problems with other opiates (8 percent versus 2 percent border), methamphetamine (7 percent versus 0.4 percent), and crack cocaine (14 percent versus 6 percent). In addition to differences in primary problem, nonborder clients were less likely to be male (59 percent versus 65 percent), more likely to be homeless (11 percent versus 3 percent), and more likely to be injectors (13 percent versus 10 percent).

Over time, the drug use problems have changed on the border and in the nonborder areas. Exhibit 27 shows the increase in use of marijuana, the decrease in heroin, and the low levels of use of crack cocaine and methamphetamine on the border. In comparison, in the nonborder areas, the use of crack cocaine has decreased, while the use of marijuana has increased. Use of methamphetamine peaked in 2005 (exhibit 28).

The drug problem also differs in cities along the border. The primary problems at treatment admission in El Paso in 2010 were alcohol (39 percent), marijuana (29 percent), powder cocaine (13 percent), and heroin (10 percent). In Laredo, 28 percent of the admissions were for heroin, 27 percent for marijuana, 15 percent for powder cocaine, and 19 percent for alcohol. In the McAllen-Brownsville area, 41 percent were for marijuana, 39 percent for alcohol, 12 percent for powder cocaine, and 7 percent for heroin. These variations were due

both to historical funding decisions (the largest methadone program in El Paso is not state-funded and does not report treatment data and there is an adolescent residential program in Laredo) and to trafficking patterns.



The DPS laboratory in El Paso in 2010 reported 44 percent of the items examined were marijuana, 24 percent cocaine, and 1 percent heroin. In Laredo, 49 percent of the items examined were marijuana, 26 percent were cocaine, and 7 percent heroin. In McAllen, 49 percent of the items examined were cocaine, 19 percent were marijuana, and 3 percent methamphetamine.

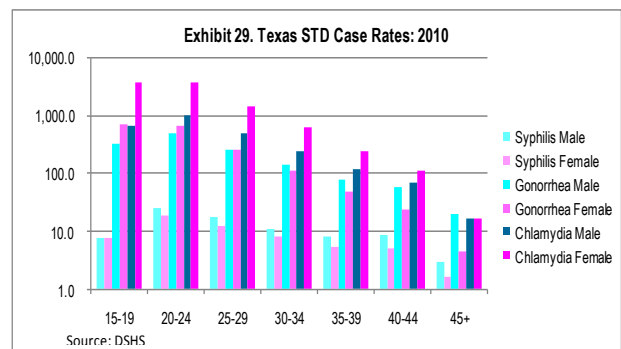
The Houston DEA FD reports levels of violence were significant in Tamaulipas, and despite media reports, McAllen is rated the 12th most secure area of the US. Several events which occurred in the McAllen area were “sensationalized” by various intelligence centers and the media, but most of these “so-called” news reports were untrue and there is no evidence that the violence in Mexico has spilled over to the Lower Valley. DEA reported there is no corroborated evidence of terrorist training camps in the area, no Zeta-controlled plazas in the U.S., and no increase in violent responses to law enforcement efforts. Isolated cases of direct attacks on police and federal agents have involved undisciplined traffickers who have attacked without higher-level permission. Reported violent crime is significantly lower in the Rio Grande Valley when compared to major Texas cities, while property crime is higher, according to

DEA.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

DSHS estimated in 2010 that 1.8 percent of Texans are infected with the hepatitis c virus (HCV). The number of acute HCV cases has fluctuated from 241 in 2000 to 496 in 2001 to 284 in 2002 to 54 in 2003 to 56 in 2004 to 102 in 2005 to 57 in 2006 to 71 in 2007 to 59 in 2008 to 36 in 2009 to 35 in 2010.

The case rate for syphilis increased from 2.9 per 100,000 in 2003 to 4.9 in 2010. The case rate for chlamydia increased from 309.9 per 100,000 in 2003 to 467.3 in 2010. The case rate for gonorrhea increased from 110.0 per 100,000 in 2003 to 124.0 in 2010. Exhibit 29 shows the case rates by age group. Notice that the case rates for all three diseases are higher for females and it is not until they reach 45 and older that their case rates for these diseases drop below that of males.

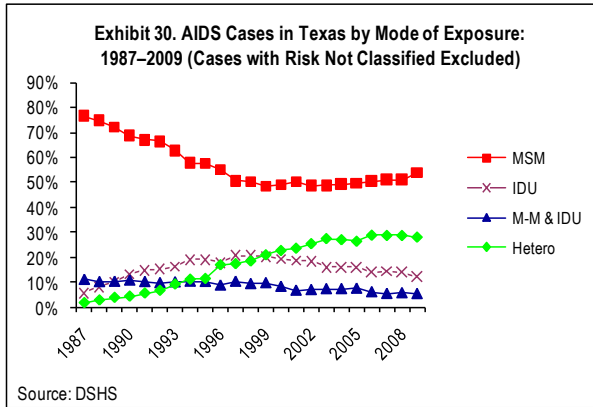


With the recent problems in the economy, HIV/AIDS outreach workers have reported increases in the numbers of people engaging in sex work to support themselves and their families or to obtain drugs, which is resulting in increases in sexually transmitted diseases (STDs). In addition, outreach workers were reporting increasing numbers of cases of syphilis and untreated HCV and HIV cases, as well as the use of Viagra in Austin by men who are in their twenties and thirties and who have sex with other men. In Houston, illegal homeless immigrants are turning to prostitution because they do not have legal documentation to work.

HIV/AIDS Cases

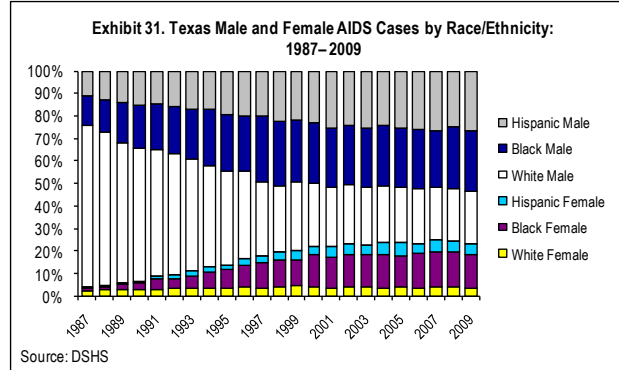
The proportion of AIDS cases among men having sex with men (MSM) decreased from 81 percent in 1987 to 54 percent in 2009 (exhibit 31). Of the cases in 2009, 28 percent were heterosexual mode of exposure, and 12 percent were injecting drug users (IDUs). The proportions of cases involving IDU or injecting drug using males who have sex with

men (IDU/MSM) have decreased over time.



Persons infected with HIV or AIDS were increasingly more likely to be people of color. Among AIDS cases in 2009, 42 percent were Black, 27 percent were White, and 31 percent were Hispanic (exhibit 31). The rate of Blacks living with HIV/AIDS was over four times the rate for Whites and five times the rate for Hispanics; the rate of new HIV diagnoses in Black women is eight to 16 times higher than rates in Hispanic and White women, respectively. Based on the new diagnoses between 2003 and 2007,

Hispanics were more likely than other groups to get a late diagnosis. Some 43 percent of Hispanics got a late diagnosis, compared to about 32 percent for Whites or Blacks, and about half of Hispanic men got an AIDS diagnosis within 12 months of their first diagnosis of HIV infection.



The proportion of IDUs entering DSHS-funded treatment programs decreased from 32 percent in 1988 to 12 percent in 2010.

Appendix 1. Characteristics of Clients at Admission to DSHS-Funded Treatment Programs: 2010

	Total Admissions	% of All Admissions	Average Age	Average Age 1st Use	Av. Lag (Yrs) 1st Use to Admission	% Black	% White	% Hispanic
Primary Substance	66935		32.3	18.1	14.3	22.1	52.1	23.2
Heroin	6652	9.7	32.9	20.7	12.2	9.0	51.1	38.3
Non-Rx Methadone	132	0.2	33.6	26.3	8.3	6.4	73.0	15.9
Other Opiates	4446	6.8	32.9	23.5	9.4	7.5	78.9	11.6
Alcohol	19770	30.2	37.9	15.6	22.3	14.4	61.6	21.0
Barbiturates	29	0.0	29.7	20.4	9.3	7.7	57.7	26.9
Other Sedatives	286	0.4	26.0	19.6	6.3	15.2	73.7	7.6
Methamphetamine	6015	9.2	33.0	21.0	12.0	2.0	87.0	7.0
Powder Cocaine	4038	6.0	33.0	21.0	12.0	27.5	31.9	38.0
Marijuana	17472	26.7	23.1	14.1	8.9	33.1	32.0	32.0
Hallucinogens	100	0.2	27.5	16.8	10.7	56.5	27.2	13.0
Inhalants	67	0.1	23.5	15.7	7.8	2.0	62.8	29.4
Benzodiazepines	853	1.3	28.9	20.9	7.9	14.4	64.3	18.5
Ecstasy	131	0.2	23.4	19.3	4.1	31.4	41.5	22.0
Rohypnol	19	0.0	16.2	13.8	2.4	0.0	0.0	100.0
Crack Cocaine	6015	8.0	40.4	25.1	15.3	53.8	33.2	11.3
GHB	12	0.2	26.0	18.3	7.8	8.3	91.7	0.0
PCP	456	0.7	29.1	19.7	9.4	87.8	3.8	5.4

	% Male	% Using Needles	% Use Daily	% Employed Full time	% No Legal Problem	% Homeless	Average Yrs Education	% Medical Problems Last 30 Days
Primary Substance	60.7	12.3	41.6	15.4	47.2	9.3	12.6	4.2
Heroin	60.0	79.8	73.7	5.4	63.9	15.9	12.4	5.9
Non-Rx Methadone	51.5	7.6	71.7	5.3	59.9	12.9	12.9	7.3
Other Opiates	42.6	9.2	67.7	10.2	61.4	6.7	13.2	7.3
Alcohol	68.1	0.0	42.1	20.6	45.2	14.4	13.0	4.6
Barbiturates	37.9	0.0	53.3	25.0	41.7	3.5	13.4	5.1
Other Sedatives	38.8	1.1	50.2	5.9	39.9	3.2	12.6	4.5
Methamphetamine	43.7	35.9	37.8	14.1	41.3	9.7	12.8	4.5
Powder Cocaine	54.2	9.5	16.8	20.9	34.1	4.8	12.4	3.7
Marijuana	70.8	0.0	29.6	17.9	23.0	1.5	11.9	2.0
Hallucinogens	54.0	3.0	14.9	10.6	35.7	8.0	12.3	1.9
Inhalants	58.2	0.0	32.4	5.4	40.3	4.5	10.7	1.8
Benzodiazepines	37.4	0.2	48.5	8.5	47.2	6.3	12.8	6.1
Ecstasy	51.2	0.0	13.4	17.1	27.5	8.4	12.2	3.4
Rohypnol	52.6	0.0	33.3	6.7	26.3	0.0	9.9	1.9
Crack Cocaine	47.6	0.5	39.5	5.8	54.1	20.0	12.7	6.8
GHB	50.0	0.0	61.5	0.0	33.3	8.3	13.5	0.6
PCP	45.4	0.0	27.6	9.9	38.2	3.5	12.2	4.5